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THE

NEW ENGLAND STATES

THEIR

CONSTITUTIONAL, JUDICIAL
EDUCATIONAL, COMMERCIAL, PROFESSIONAL AND
INDUSTRIAL HISTORY

WILLIAM T. DAVIS
EDITOR

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THE NEW ENGLAND STATES.

CHAPTER CXXXV.

NEW ENGLAND TRANSPORTATION.

BY JOSIAH H. BENTON, JR.*

EARLY TRANSPORTATION.



IN New England the first change from travel by private conveyances was to the letting of horses and carriages for single journeys, then a driver was furnished with them, and the days of staging began. For the history of the growth of this mode of transportation we must search the advertisements in the newspapers of that day. As early as 1767 we find the following notice in the Boston *Evening Post*:

"Stage coach No. 1, kept by Thomas Sabin, sets out every Tuesday morning from the house of Mr. Richard Olney, Innholder, at the coffee-house, the sign of the Crown, in Providence, to carry travellers to Boston on the most expeditious and cheap rate. While in Boston he puts up at Mr. John Burrows', at the sign of the Lamb, where he will be ready to wait on all those who may be pleased to return with him on the Tuesday following. Said Sabin has provided himself with several sets of good horses for said purpose, and intends following the business all the summer season. All gentlemen and ladies may depend on the most ready observance of their desires by their very humble servant, Thomas Sabin."

Daily communication, except on Sunday, between Boston and Salem by a "new stage chaise" was established in 1770 by Benjamin Coats, landlord of the "Ship Tavern," of North street, and in 1771 there was a "curricule" running between Boston and Portsmouth twice a week.

June 8, 1771, John Adams made this entry in his diary:

"Looking into the almanac I am startled. Supreme Court at Ipswich is the eighteenth day of June. I thought it a week later, twenty-fifth, so that I have only next week to go home, one hundred and twenty-five miles. I must improve every moment. It is twenty-five miles a day, if I ride every day of next week."

About the same time, President Quincy, of Harvard College, wrote of the stage journey between Boston and New York:

"The carriages were old, and the shackling and much of the harness made of ropes. One pair of horses carried us 18 miles. We generally reached our resting place for the night,

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if no accident intervened, at ten o'clock, and after a frugal supper went to bed, with a notice that we should be called at three next morning, which generally proved to be half-past two, and then, whether it snowed or rained, the traveller must rise and make ready, by the help of a horn lantern and a farthing candle, and proceed on his way over bad roads, sometimes getting out to help the coachman lift the coach out of a quagmire or rut, and arriving at New York after a hard week's travelling, wondering at the ease, as well as the expedition, with which our journey was effected."

In April, 1793, a "Fast Line" between New York and Boston was advertised in the *Columbian Centinel* to leave Boston at four o'clock in the morning, three times a week, and reach New York in three days and a half, the coaches to carry only four persons inside, and each passenger to be allowed to carry fourteen pounds of baggage free, fare four pence a mile. Another line made the trip in four days at three pence a mile. Stages were also then running, twice a week, between Boston and Walpole, N. H., at two and a half pence a mile, and a weekly stage, "with genteel curtains and cushions, and a pair of able horses," was advertised to run between Haverhill and Boston once a week, at three pence a mile.

In July, 1793, two competing lines of stages were run three times a week, between Boston and Providence, each sharply under-bidding the other, even to the extent of advertising to carry for less than any price which the other might fix. This competition produced the usual result of combination, and in August, 1793, the two proprietors having pooled their business, doubled the rates, and charged \$2.50 per passenger, and in the following winter they raised the rates to \$3.00, on account, as they said, "of the enormous prices of hay and grain."

In June, 1814, a daily stage ran between Boston and Providence at a fare of \$3.00, and in July of the same year a "New Line Enterprise" of stages was advertised to run every day except Sundays between New York and Boston, making the trip in two days.

Coaches, however, were slow even at the best, and as late as 1824 it was recorded by the newspapers in New England as a great feat that a journey of three hundred and twenty miles had been accomplished in three days.

In New England, as elsewhere, the first attempt to improve means of transportation was by canals. The opening of numerous canals in England between 1760 and 1780 under the management of Francis, Duke of Bridgewater, and the celebrated engineer Brindley, naturally turned attention to the practicability of similar works in New England. March 10, 1792, the legislature passed

"An act to incorporate Henry Knox, Esq., and others for the purpose of opening a navigable canal from some part of Connecticut River to communicate with the Town of Boston, by the name of the Proprietors of the Massachusetts Canal."

The corporators under this charter were

"to build a canal between the Connecticut River and Boston, or the waters surrounding it, and to build branches to any part of the Commonwealth,"

but did nothing except to make rough surveys, and appear to have thought the canal could be built, including locks, for \$2,000 a mile.

June 27, 1792, the Legislature of Massachusetts passed

"An Act incorporating Dudley Atkyns Tyng, Esq., and others for the purpose of rendering Merrimack River passable with Boats, Rafts, and Masts from the Divisional Line of New Hampshire and Massachusetts to the Tide Waters of the said River, by the name of the Proprietors of the Locks and Canals on Merrimack River."

June 22, 1793, the Legislature of Massachusetts passed

"An Act for incorporating James Sullivan, Esquire, and others by the name and style of The Proprietors of the Middlesex Canal,"

to build a canal "from the Merrimac River to the Mystic River in the town of Boston."

This canal was begun in the spring of 1795, and completed in 1803. It was twenty-seven miles long, had twenty locks and forty-eight bridges, and cost about \$500,000, but was so poorly built that all its income was required to perfect it till 1819, and the total cost was \$1,164,200. Its terminus in Boston was where the present Haymarket Square Station of the Boston and Maine Railroad was afterwards built.

The Erie Canal was opened from Lake Erie to the Hudson, three hundred and sixty-three miles, in October, 1825, at a cost of \$7,620,000, and the Legislature of Massachusetts then constituted a commission to ascertain the practicability of making a canal from Boston harbor to some point on the Hudson river, near the junction of the Erie Canal with that river. This commission reported in January, 1826, in favor of a canal with four hundred locks between Boston and Connecticut river, which should tunnel the Hoosac Mountain at a point where the Hoosac Tunnel now is, and which they estimated could be constructed for a little over \$6,000,000, a portion of which it was proposed to raise by a state lottery, the morality of which the commissioners' report gravely argued. Another scheme avoided the tunnel by a system of two hundred and twenty locks in a distance of eighteen miles, requiring two days to pass them, and estimated to cost \$2,090,000, or \$1,169,168 more than the estimated cost of the tunnel. Nothing was done towards the construction of this canal.

On the 7th day of October, 1826, the first cars were run on the Granite Railway in Quincy. The feasibility of transportation by railroads had been demonstrated by the success of the Stockton and Darlington Railroad in England, and the Quincy road brought the new method before the eyes of the people here. They divided upon the question, Whether railroads were likely to be superior to canals? The legislature was also divided. The House favored railroads, the Senate canals. The House adopted an order providing for a joint committee to sit during the recess and consider the practicability and expediency of constructing a railroad from Boston to the Hudson river. The Senate, however, refused to concur in the order, and it was finally so amended as to provide for a select committee of the House alone. Dr. Abner Phelps and George W. Adams, of Boston, and Emory Washburn, of Worcester, were appointed that committee.

The lack of information upon the subject of railroads, at that time, is strikingly illustrated by an incident which occurred at the funeral of ex-President John Adams. A delegation of the legislature attended the funeral at Quincy, after which they returned by the way of Milton, at the request of Dr. Phelps, to look at the Granite Railway, then in process of construction. Daniel Webster was of the party, and Dr. Phelps, who was very enthusiastic in favor of railroads, endeavored to interest Mr. Webster in the new method of transportation. Mr. Webster listened with great gravity to the doctor's earnest remarks, and, being pressed for the expression of an opinion, finally said, "Well, Dr. Phelps, it is certainly a subject for very grave consideration whether roads for general travel may not be made as you propose," a remark which is said to have given Dr. Phelps great encouragement.

This committee made an elaborate report to the legislature in January, 1827, in which they declared themselves satisfied, "not only of the practicability, but of the

expediency, of building a railway from Boston to the Hudson river," and recommended resolves for the appointment of three commissioners and an engineer to make surveys, etc. They urged this scheme as preferable to that of the canal, but followed the canal idea so closely as to make provision for paths for the drivers on each side of the proposed railroad, which it was contemplated by them should be operated by animal power. The legislature took no action on the report of this committee, but appointed a board of directors of internal improvements, consisting of three members, to receive for their services and expenses \$4 each per day of actual service. This board, naturally, did nothing. At the June session, 1827, the city of Boston petitioned for the construction of a railroad to the Hudson, and a commission was appointed to survey the route, which reported in June, 1828, recommending a road to be operated by horse power, but alluding to the possibility of its operation at some time in the future by movable engines. The legislature, after referring this report to a committee, and careful discussion, resolved "that the subject of railway construction has assumed a new and greater importance," and appointed a new board of directors of internal improvements to serve without any compensation. This board reported in January, 1829, advocating a railroad from Boston to the Hudson, which they said must be aided by the commonwealth in some way, to be constructed with granite sleepers resting on granite posts, or piers of masonry sunk in the ground, and to be operated by horse power, but they recognized the possibility of its operation by steam at some future time. The legislature did not approve the suggestion of state aid, and did nothing upon this report.

When the legislature of 1830 met, the practicability of operating a railroad by steam had been fully demonstrated in England, and petitions were presented for the first time, asking for charters to individuals to build and operate railroads. The courts had just held in the celebrated Charlestown bridge case, that the legislature having granted one charter for a bridge or transportation company, might make a new grant to the injury of the old one, and private individuals naturally hesitated to take and act upon a grant to build a railroad between two points without a provision that should protect them against another grant for a railroad between the same points. The legislature was equally unwilling to make a grant which should confer any right that could not be impaired by subsequent legislation, but it finally yielded, and in the charter granted to the Boston and Lowell Railroad Corporation, in June, 1830, conferred upon that corporation the right to build a railroad from Boston to Lowell, with the provision that "No other railroad should within thirty years from the granting of that charter be authorized to be made leading from Boston or Charlestown or Cambridge to Lowell, or from either of said places to any place within five miles of the northern termination of their road," and also with the privilege to the corporation to enjoy the right of conveying and transporting persons and property by railroad from Boston and Charlestown to Lowell, and from Lowell to Boston and Charlestown without hindrance, competition or interruption from any other corporation or corporations authorized to own a railroad between other places by making use of other railroads, or portions of other lines of railroad, to establish a nearly parallel railroad communication from Lowell to Boston or Charlestown, or from Boston or Charlestown to Lowell, and with a terminus in Lowell, or within five miles of the terminus of its road at Lowell.

This provision was subsequently enforced by suit in 1854 by the Boston and Lowell Railroad Corporation against the Salem and Lowell, Boston and Maine, and Lowell and Lawrence Railroad Companies, which attempted to establish a competing line to the Boston and Lowell between Lowell and Boston.

A similar provision was incorporated in several other railroad charters in Massachusetts about the same time, but the Boston and Lowell Railroad was the only one built under such a charter.

The report of the commission, which surveyed the route for the Boston and Lowell Railroad, to the legislature, stated that the evidence before them showed that there were six stages each day between Boston and Lowell, which carried from one hundred to one hundred and twenty passengers both ways, and that the manufacturing corporations at Lowell would furnish sixteen tons of freight and other persons eight tons of freight a day to the proposed road. They recommended that a macadamized highway, thirty feet wide, be constructed by the side of the railroad to be used in connection with it, and the same recommendation was also made in the report of a survey for the route of a railroad from Boston to Providence, with the additional suggestion that the railroad should be operated by animal power. Governor Lincoln, in his speech to the legislature in 1828 said that this road ought to be built, and the state ought to subscribe to a part, at least, of the stock. He said it appeared to be established that horse-power would be most expedient for the use of the road, and that the power of a single horse working seven hours a day, and traveling at the rate of three miles an hour, would be equal to the transportation of eight tons, including the weight of the carriage, and the same power of a single horse working three hours a day would convey a carriage with twenty-five passengers at the speed of nine miles an hour; that one set of tracks, with suitable offsets and side tracks would be sufficient to accommodate the business; and that the expense of constructing the road in the most thorough manner would not exceed \$8,000 per mile. As to the proposed road from Boston to the Hudson river he said that the surveys had advanced far enough "to confirm a previous opinion that such a railroad, by at least one route, was reasonably practicable, and to justify the legislature in continuing its examination with reference to it."

All the early railroads were originally projected upon the idea that they were to be operated by animal-power. The Baltimore and Ohio, which was begun in 1828, was actually so operated for some time, and the station on its route at the junction of the main line with the Washington branch was named the Relay House, because it was the point where a fresh relay of horses was taken.

Horses were actually used as the first motive power on some of the American railroads. In 1833 an account of the Mohawk and Hudson Railroad (the first in New York) stated that passengers were carried upon it in coaches drawn by horses and by the locomotive engines, the powers of which were not then conclusively tested. In South Carolina a railroad was built as early as 1830, and was propelled from twelve to fifteen miles an hour by sails, which the *Charleston Patriot* declared to be "highly gratifying." Another means of drawing cars was by an engine run by a horse walking on an endless platform, like the early horse ferries. This drew passengers twelve miles an hour. As late as 1842, horse-power was used on the Westchester Railway, and a few other roads in Pennsylvania.

Horse power was never actually used on railroads in Massachusetts to any great extent, but when the original charters were granted it was expected that it would be, and the charters were all framed upon the theory that animal power was to be used on the roads, and that any person might put carriages and motive power upon them, and pay toll to the corporation for their use, and expressly provided that the corporations might erect toll-houses, appoint toll-gatherers, and establish and collect tolls for such use. It was not until 1845 that the legislature provided that no locomotive or other motive power, not owned or controlled by the corporation owning or con-

trolling the road, should be permitted to run upon it without the consent of the corporation.

When the first Massachusetts railroads were opened for operation, however, Stephenson's locomotive, the "Rocket," had been successfully run between Liverpool and Manchester, and in November, 1830, a steam locomotive had been used on the Mohawk and Hudson railroad, now a part of the New York Central Railroad, and in August, 1831, on a portion of the Baltimore and Ohio.

The construction of the three original railroads from Boston to Providence, to Worcester and the Hudson, and to Lowell, were peculiarly Boston enterprises, and so much was the city interested in them, especially in the one to reach the Hudson river, that in 1831, the city, by its common council, petitioned the legislature for leave to subscribe for stock to the amount of \$1,000,000, in a railroad to be established in "a direction calculated to facilitate intercourse between Boston and the western states," but the legislative committee to whom the subject was referred, reported that such a power as was asked was "not necessary to accomplish any municipal purpose," and the petition was therefore denied.

The Boston and Lowell, Boston and Providence, and Boston and Worcester Roads were undertaken and completed as private enterprises wholly. The construction of a railroad from Worcester to Albany to complete the connection between Boston and the Hudson river, however, was an enterprise of much greater difficulty. Boston had then but eighty thousand inhabitants, and an assessed valuation of about \$80,000,000. \$2,000,000 dollars were estimated to be necessary for this enterprise, which required a subscription of twenty thousand shares. Subscription books were opened in July, 1835, and at the expiration of the ten days for which they were opened but thirteen thousand shares had been taken, of which eighty-five hundred had been subscribed in Boston. A mass meeting was held in October in Faneuil Hall. Speeches were made by Edward Everett and others, a committee appointed to collect additional subscriptions, and the members of this committee were directed to call on every man in the precincts assigned to them—from the capitalist to the carman—"to urge the importance of subscribing for one or more shares." This appeal was not successful, and another meeting was held in November. The committee finally succeeded by dint of great effort in procuring the required amount of subscriptions. The list included over two thousand two hundred names, making the average subscription for less than ten shares. It was found that the two millions was insufficient, and an application was made to the Legislature for aid. This application was made successful by a curious and ingenious appeal to political prejudice. President Jackson was then making war on the United States Bank, and the Democratic party was bitterly opposed to all banking projects. The applicants for aid to the railroad presented a bill to the Legislature to create the State Bank of Massachusetts with a capital of \$10,000,000, one million of which the directors were required to subscribe for ten thousand shares of the stock of the Western Railroad. The friends of the proposed bank and the friends of the railroad were, of course, united in the support of this bill, and the Democrats of the Legislature, in order to defeat it, presented a proposition for direct state aid to the railroad, which the friends of the road gladly supported; and it was passed by the house by a vote of two hundred and forty-three to nine, and finally approved by the governor, April 4, 1836. It is needless to say that the bill for the establishment of the State Bank of Massachusetts was never heard of after this. The sum of \$3,000,000 was thus raised, and the work of constructing the Western Road was begun in 1837.

In 1838, again in 1839, and again in 1840, and again in 1841, the legislature

made further grants of direct aid to this road, which ultimately cost about \$7,000,000. It was during the efforts made to induce the commonwealth to aid this road that the Rev. Dr. Lothrop preached a sermon in Brattle Square church on the subject of the moral and christianizing influence of railroads, which induced Mr. Philip F. Degrand, who was largely interested in the road, to issue a circular on his own account to every clergyman in Massachusetts, suggesting the propriety of preaching sermons in their churches on the moral and christianizing influence of railroads in general, and of the Western Railroad in particular.

Many of the advocates of the railroad from Boston to the Hudson were in favor of charging no toll upon it for through business. They claimed that it should be constructed by state aid and supported by charges upon its local business, and that the through business should have the right to use it for nothing.

At first the development of railroad transportation was slow. In 1830 there were only forty-eight miles of railroad in the United States, and only a few short steamboat lines. Two-thirds of the mails were carried in coaches with bodies swung on leather straps (thoroughbraces) to prevent being knocked to pieces by jolting over the rough roads, many of which were made of logs laid side by side, and called "corduroy." The other third of the mails were carried on horseback or in two-wheeled vehicles called sulkies.

In 1832, Mr. Philo Carpenter, in making a trip from Troy, N. Y., to Chicago (then called Fort Dearborn), went by the Erie canal to Buffalo, then by lake steamer to Detroit, from there by stage to Niles, Mich., then by flat-boat to the mouth of the St. Joseph's river on Lake Michigan, then in a bark canoe, with two Indians, on the lake to the mouth of the Calumet river, from which point he reached Chicago in a lumber wagon drawn by oxen.

The first rails for railroads were of wood to which flat strips of iron one-half to three-quarters of an inch thick were spiked, and the cars were made like stage coach bodies and held from eighteen to twenty-four passengers. The locomotives weighed from two to six or seven tons.

In the light of experience many of the discussions as to the feasibility of railroads are extremely ludicrous.

In 1814 George Stevenson constructed his first locomotive, which traveled six miles an hour. He claimed that this speed could be greatly increased, and the subject of travel by railroads was discussed in England and America with great interest, and sometimes with no little bitterness on the part of those who opposed it. In March, 1825, the English Quarterly Review in a lengthy article in opposition to the new scheme said :

"We are not advocates for visionary projects that interfere with useful establishments. We scout the idea of a railroad as impracticable. What can be more palpably absurd and ridiculous than the prospects held out of locomotives travelling twice as fast as stage coaches? We should as soon expect the people of Woolwich to suffer themselves to be fired out upon one of Congreve's ricochet rockets, as to put themselves at the mercy of such a machine going at such a rate."

And as late as June, 1827, the Boston *Courier*, in a leading article by Mr. Buckingham, its then editor, upon the report of Dr. Phelps, Mr. Adams and Mr. Washburn, a committee of the House of Representatives, that they were "satisfied of the practicability" of constructing a railroad from Boston to the Hudson River, said :

"Alcibiades, or some other great man of antiquity, it is said, cut off his dog's tail that quidnuncs might not become extinct for want of excitement. Some such motive, we doubt not, moves

one or two of our natural and experimental philosophers to get up the project of a railroad from Boston to Albany, a project which every one knows, who knows the simplest rules of arithu etic, to be impracticable, but at an expense little less than the market value of the whole territory of Massachusetts, and which, if practiced, every person of common sense knows would be as useless as a railroad from Boston to the moon."

While a resolution that a railroad from Boston to the Hudson would be a public advantage was under discussion in the Massachusetts Legislature in 1829, one conservative member said :

"Pass the resolution and who can predict the consequences? If we should say by our acts that such a work would be of advantage, who can say but some daring agitator may not arise and propose to put the idea into practice? And if such a work should be undertaken, public credit would be overthrown and every dollar of property in the Commonwealth would be in jeopardy."

So fierce was the opposition that the resolution was adopted by the Senate by only one majority.

As late as 1835, in a report to the New York Legislature the four leading engineers of the state said :

"The railroads admit of advantageous use in districts where canals for want of water would be impracticable. They will probably be preferred when high velocities are required, and for the transportation of passengers, and under some circumstances for the conveyance of light goods."

In 1842, the inhabitants of the town of Dorchester (now a part of Boston) assembled in town meeting to consider the question of how they could prevent the construction of a railroad through the town. A committee of six leading citizens was appointed to oppose the construction of a railroad and a long series of resolutions was adopted protesting against any charter by the Legislature of a railroad through the town of Dorchester. The first resolution declared it to be the opinion of the inhabitants that a railroad upon either of the lines asked for by those seeking the charter

"Will be of incalculable evil to the town generally, in addition to the immense sacrifice of private property, which will also be involved. A great portion of the road will lead through thickly settled and populous portions of the town, crossing and running contiguous to public highways, and thereby making a permanent obstruction to the free intercourse of our citizens, and creating great and enduring danger, and hazard to all travel upon the common roads."

The second resolution declared that if, in spite of the objections of the inhabitants of the town, a railroad should be located therein,

"It should be located upon the marshes, and over creeks, and by thus avoiding all human habitations and business resorts, cause a less sacrifice of private property, and a much less injury to the town and the public generally."

The last resolution was

"That our representatives be instructed to use their utmost endeavors to prevent, if possible, so great a calamity to our town as must be the location of any railroad through it, and if that cannot be prevented, to diminish this calamity, as far as possible, by confining the location to the route herein designated,"

that is, over the marshes.

Shortly after the meeting a citizen of Dorchester wrote a newspaper article in which he said,

"What better or more durable communication can be had than the Neponset River, or the wide Atlantic? By using these, no thriving village will be destroyed, no enterprising mechanics

ruined, no beautiful gardens and farms made desolate, and no public or private interests most seriously affected. Look at the rapid growth of Neponset village, through which this contemplated road is to run (the citizens of which are as enterprising and active as can be found, many of whom have invested their all either in trade, mechanics, manufactures, or real estate), and all—all are to be sacrificed under a car ten thousand times worse for the public than the car of Juggernaut! Look at the interests, for instance, of the public house in this place, kept by a most estimable citizen, who has ever—" etc.

The opposition to the introduction of railroads in England was also very strong and manifested itself in many different ways. Newspapers and pamphlets ridiculed each railway proposition, and the subject of railroads in general. Householders were told that their homes would be hourly in danger of being burned to the ground, and farmers were assured that their hens would not lay nor their cows feed, and that game would fall to the ground if it attempted to fly over the poisoned breath of the engines. It was claimed that hundreds of innkeepers and thousands of horses would have nothing to do; that labor for the poor would be lessened, and their expenses would be increased; that canals would be destroyed, and all those who lived by them would be beggars, and that houses would be crushed by the falling embankments. It was averred that the 27,000 miles of turnpike roads in England, to say nothing of other public and cross-roads, would be made wholly useless. Medical men asserted that the gloom and damp of tunnels, and the noise, clanking chains, and dismal glare of the locomotives, would be injurious alike to body and mind of the passengers. An eminent parliamentary lawyer affirmed that it would be impossible to stir the locomotive in a gale of wind, "either by poking the fire, or keeping up the pressure of steam till the boiler was ready to burst." A well-known engineer deprecated

"The ridiculous expectation, or rather professions of the enthusiastic speculators, that we shall see engines traveling at the rate of twelve, sixteen, eighteen, or twenty miles an hour. Nothing," he said, "would do more harm towards their general adoption and improvement than the promulgation of such nonsense as that."

This opposition produced in many cases substantial results. The London and Birmingham Railroad was compelled to change its route from Northampton upon the opposition of citizens of that town, lest the wool of the sheep should be injured by the smoke of the locomotives, and by so doing a tunnel was obliged to be made at an additional expense of a million and a half of dollars.

Oxford would not permit the Great Western Railway bill to pass without the insertion of special provisions to prohibit the building of any branch to Oxford, or of a station on the line at the nearest point to Oxford, and when the directors subsequently attempted to evade this condition with reference to the station, by only stopping their trains to take up or set down passengers, legal proceedings were commenced against them, and they were prohibited from even making a pause at that point.

As railroads took the place of stages many of the customs of stage travel continued for some time in the use of railroads. For instance, a passenger who desired to travel by stage was accustomed to go or send to the stage office and have his name entered a day at least before he desired to travel. This being entered in a book kept for that purpose, he was said to "book" his name, and when railroads came into use the same custom was observed, and people desiring passage went to the ticket office of the company and engaged their seats the day or the evening before their journey. In April, 1835, the Boston and Worcester Railroad advertised its trains between Boston and Worcester, and gave the following notice in connection therewith: "To

secure seats passengers should purchase tickets the day or the evening before. The ticket office, 617 Washington street, will be open from five o'clock in the morning to nine in the evening, *meal-time excepted.*' And to-day, in England, the ticket offices of railroads are called "Booking offices," and a person who buys a ticket is said to "book."

It was the custom for stage lines to call with their coaches at the residences of persons who had previously booked their names and secured their seats, and the railroads for a short time followed the same custom.

April 26, 1835, the Boston and Providence Railroad, in connection with the advertisement of its trains gave this notice: "By leaving their names at No. 9 Elm street passengers will be called for." In the same paper, under date of July 29, 1835, the Boston and Worcester Railroad gave notice, as follows: "Tickets can be secured *only* at the ticket office, 617 Washington street. Passengers are not sent for by the Company, but seats are provided for all who apply as above."

The companies continued for some time to furnish carriages at the station in Boston to convey passengers to different parts of the city. Under date of February 17, 1835, the Boston and Providence road annexed to the notice of the time of its trains in the *Daily Advertiser*, the following:

"N. B.—Mr. McIntire, the conductor of the cars, will have in readiness on the arrival of the cars in the depot at Boston a carriage to convey passengers to any part of the city, at twelve and a half cents per passenger. Passengers for Dedham will, as heretofore, leave their names at 9 Elm street."

When the Boston and Lowell Railroad was opened it inserted the following advertisement in the *Daily Advertiser*, under date of July 7, 1835:

"Desirous to accommodate the public, the company have determined to run four times a day each way until further notice."

Beneath this notice there soon after appeared the following:

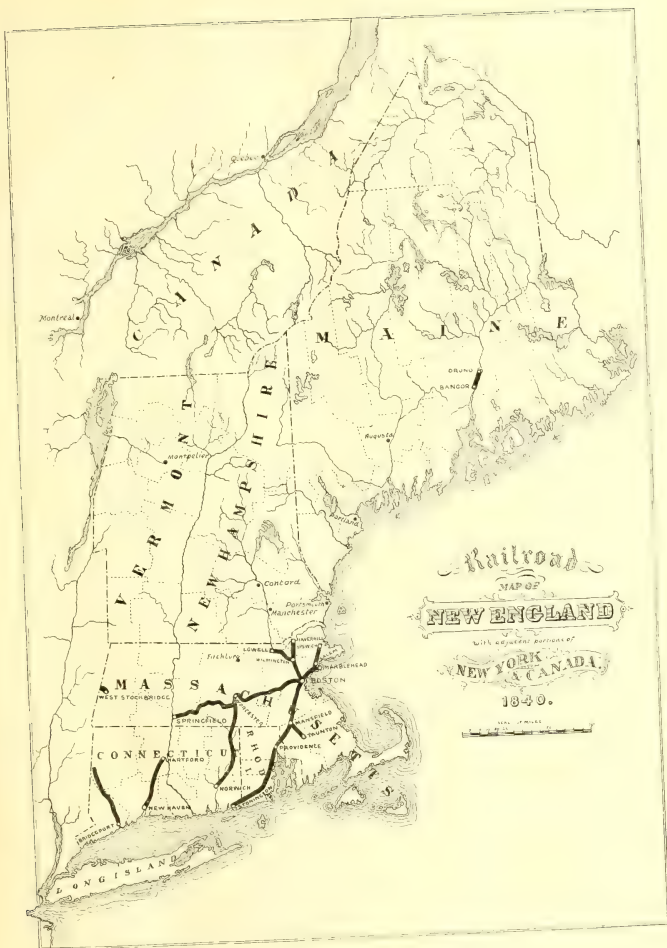
"In consequence of an accident to the engines the cars will be run but twice a day each way until further notice."

And during the same year the Boston and Worcester road advertised that one of the trains between Boston and Newton would be discontinued until further notice on account of the shortening of the days.

The railroads assumed the transportation of merchandise with great caution, as will appear from the following notice, published by the Boston and Worcester road, in the *Daily Advertiser*, in 1835:

"The subscriber requests all persons sending goods by the railroad to be careful to have them delivered *before dark* to John Freeman, Master of Transportation, as the company will not be responsible for goods delivered after dark. James F. Curtis, Superintendent."

They were equally cautious with reference to the carriage of baggage for passengers, and gave special notice in all their published time tables that passengers must cause their baggage to be distinctly labelled or marked with its place of destination, and also state the same facts to the person into whose charge they gave it on the railroad, and further notified passengers that they would only be allowed to carry forty pounds for each person, and that all baggage was taken *at the owner's risk*.



CHAPTER CXXXVI.

NEW ENGLAND TRANSPORTATION—Continued.

RAILROADS OF NEW ENGLAND.



THE history of New England railroads covers little more than fifty years, but within that time they have contributed more than any other single influence, perhaps more than all others, to change the character of its inhabitants and of its social and political conditions. By them its population has been drawn from the farms to large manufacturing centres, and thus that comparative equality of pecuniary and social condition which existed among the people in the early part of the century has been largely changed, and it has been transformed from agricultural and seafaring to manufacturing and commercial communities.

Perhaps the most marked immediate effect of the construction of railroads in New England was to secure and increase the importance of Boston as the centre of New England life.

When the Erie Canal was opened from the Great Lakes to the Hudson in 1825, Boston had a population of fifty-eight thousand two hundred and eighty-one, and was the only important city east of the Hudson. But it had no means of communication with the interior, and its trade was in danger of diversion at other points. Canals were then the only known means of improving transportation, and canals necessarily follow the course of rivers, or are but links between lakes. But no important river flowed to Boston, and while the danger of diversion of business from New Hampshire to Portsmouth had been obviated by the construction of the Middlesex Canal from Boston to Lowell in 1803, no practical method had been devised to prevent the business from a large part of New Hampshire and from Vermont going by the Connecticut and the Sound to New York, or even to keep the business from the interior of Massachusetts itself from going by the Blackstone, and the canal through its valley, to Providence and New York.

Various canals had been proposed, the principal of which was one from Boston to the Connecticut and to the Hudson, to be either carried over the Berkshire Hills by a series of locks, or carried under the hills by a tunnel.

It was obvious, however, that neither of these plans was possible, on account of the great expense by the then existing methods of construction, if for no other reason.

It seemed inevitable that, with the exception of a portion of New Hampshire reached by the Middlesex Canal, all the trade of the interior of New England would go to New York by the Hudson and the Connecticut, the Blackstone and the Sound.

Railroads alone prevented this result, and preserved Boston as the commercial and business centre of New England. Without this it would have become a quiet university town with a constantly diminishing foreign commerce, for commerce upon the sea depends absolutely upon commerce upon the land.

In 1826, however, the Quincy Granite Railway Company was chartered to construct a railway from the Bunker Hill quarry, then opened in Quincy for granite for

the construction of Bunker Hill monument, to the Neponset river, about four miles. The idea of this railway was suggested to Gridley Bryant, a young Massachusetts engineer, by reading of the plans of Stevenson for the construction of the Stockton and Darlington Railway, between Liverpool and Manchester, England. Bryant surveyed the route, superintended the construction, and invented the appliances for the operation of this rude little pioneer railway, the success of which was to have such far-reaching consequence in the future of New England.

The road cost about \$50,000, and was opened for use October 7, 1826. It was constructed with four inclined planes of different grades, operated by horse-power. The appliances for its operation, however, included the switch, the portable derrick, the turn-table, and the movable truck for an eight-wheel car, all of which became of general and necessary use in subsequent railroad operation.

The immediate effect of the opening of the Granite Railway was to direct public attention to the practicability of similar roads for general use. Petitions were at once presented to the Massachusetts Legislature for surveys for a railroad from Boston to the Hudson. There was great opposition. The House passed a resolve for a joint committee to investigate the subject, but the Senate refused to concur, and the House was compelled to appoint a select committee of its own to "consider the practicability and expediency of constructing a railway from Boston to the Hudson." This committee reported in January, 1827, that they were satisfied "not only of the practicability, but of the expediency of building the railway from Boston to the Hudson."

They recommended a road operated by horses, and with paths on either side for the drivers. The Legislature treated this report with indifference, but at the next session the citizens of Boston, by strenuous effort, obtained the passage of a resolve appropriating \$10,000 for a commission to survey for a railway to the Hudson. In January, 1828, this committee reported in favor of a railway to be operated by animal power, and possibly by movable engines.

In the meantime the Erie canal was rapidly developing the business of New York, and the trade of the western and central portions of New England was fast seeking a centre in New York city. Governor Lincoln, in his annual message to the Legislature, repeatedly called its attention to the importance of the subject, and urged state aid in some form for the construction of railroads from Boston to the Hudson, and to other interior points.

October 7, 1828, the Blackstone Canal was opened from Providence to Worcester. But the Massachusetts Legislature moved slowly, and it was not until 1830 that it even granted a charter for the construction of a railroad by private capital.

March 10, 1830, the Franklin Railroad Company was incorporated to build a railroad from Boston to the state line of New Hampshire or Vermont, and on March 12th the Massachusetts Railroad Corporation was created to construct a railroad from Boston to the west line of Massachusetts "with a view to its final termination at the Hudson river." And the Boston, Providence and Taunton Railroad Corporation was created to construct a railroad from Boston to the head of navigation on Pawtucket river, or to the Rhode Island state line in Pawtucket. The charters of these corporations gave them no exclusive routes, and nothing was done under them.

June 5, 1830, the Boston and Lowell Railroad Corporation was chartered to build a railroad from Boston to Lowell, with an exclusive right to maintain a railroad between those points for forty years.

June 16, 1831, the West Stockbridge Railroad Company was created to build from West Stockbridge village to the New York state line.

June 22, 1831, the Boston and Taunton Railroad Company was chartered to build a railroad from Boston to Taunton, and from Taunton to the Rhode Island state line in the direction of Providence, with power to "thereon transport persons and property by steam-power or otherwise," which provision was not contained in the other railroad charters.

On the same day the Boston and Providence Railroad Corporation was incorporated, to build from Boston to the Rhode Island line in Pawtucket, or Seekonk, in the direction of Providence; the Boston and Ontario Railroad Corporation to build from Lowell to the northerly or westerly line of the commonwealth; and the Boston and Worcester Railroad Corporation to build from Boston to Worcester.

March 2, 1832, the Berkshire and New York Railroad Company was incorporated to build from the Connecticut state line, at a connection with the contemplated railroad from New York to Albany, to the West Stockbridge Railroad, "with a view of having the same extended by the inhabitants of the state of New York to Albany."

March 6th, the Pittsfield and West Stockbridge Railroad Company was chartered to build from Pittsfield to the west line of the commonwealth in West Stockbridge.

March 15, 1833, the Andover and Wilmington Railroad Corporation was created to build from Andover to the Boston and Lowell Railroad, in Wilmington, "so as to form a branch thereof."

On the same day the Western Railroad was incorporated, to build from the western termination of the Boston and Worcester Railroad, in Worcester, to Springfield, and to the New York state line towards the Hudson.

March 15, 1833, the Norwich and Worcester Railroad Corporation was chartered to build from Worcester to the Connecticut state line, in the direction of Norwich, with power to connect its road with that of the Boston and Worcester Railroad in Millbury or Worcester.

April 7, 1835, the Taunton Branch Railroad Corporation was chartered to build, by a course specified in the charter, from Taunton to a junction with the Boston and Providence Railroad, in Mansfield, with a right to vary the line specified, not exceeding three hundred feet westerly thereof, with the consent of the selectmen of Mansfield, and the owners of the lands over which it would then pass, and also with the right to contract with the Boston and Providence Railroad Corporation to construct and operate the road as a part of its own.

April 5, 1836, the West Stockbridge Railroad Corporation was chartered to build from the west line of the state to West Stockbridge, and was required to so construct its road as to make it practicable for any other railroads leading from the state of New York to unite with the same at the state line, but not to allow to such railroad any exclusive privilege over any other railroad in New York, and also to permit the Western Railroad Corporation to unite their road or any branch thereof with its road. The Western Railroad Corporation was authorized by this charter to purchase the West Stockbridge Railroad at any time before December 1, 1839, and make it a part of its own road, upon payment of the amount paid in and expended upon the road up to the time of purchase.

April 10th, 1836, an act was passed to authorize the Worcester and Norwich, and the Boston, Norwich and New London Railroad Company, a railroad corporation under the laws of Connecticut, to unite and form one corporation under the name of the Norwich and Worcester Railroad Company, which was the first act authorizing the union of railroads in New England.

April 14, 1836, the Eastern Railroad Company was incorporated, after great opposition, extending over several sessions of the legislature, with a right to build a

railroad from Boston to the New Hampshire state line, beginning at Lewis Wharf in Boston, thence by ferry to East Boston, and thence by a line specified by courses and distances in the charter, with a proviso that a part of the line thus described might be altered in a certain way, if the inhabitants of the town of Newburyport should so determine at any legal meeting called for that purpose.

April 15, 1836, the Pittsfield and West Stockbridge Railroad Company was incorporated to build by a specified route from Pittsfield to the West Stockbridge Railroad, or the Western Railroad in West Stockbridge.

April 16, 1836, the Nashua and Lowell Railroad Corporation was created to build from Lowell to the state line of New Hampshire, there to connect with the road of a similar corporation in that state; but was required to build upon a line specified by courses and distances in the charter.

On the same day the New Bedford and Fall River Railroad Company was created to build from Fall River to New Bedford, by a specified route.

On the same day the Seekonk Branch Railroad Company was incorporated to build from the Seekonk river to the Boston and Providence Railroad, a distance of about two thousand feet. This charter contained the peculiar provision that the franchise, rights and property of the company should never be directed, controlled or owned by the persons who at the same time directed, controlled or owned the southern termination of the Boston and Providence Railroad in the state of Rhode Island.

April 13, 1838, the Old Colony Railroad Corporation was chartered to build from Taunton to New Bedford, by a specified course.

No other railroad corporation was created in Massachusetts in 1837 and 1838, but the Nashua and Lowell Railroad Corporation of Massachusetts was authorized to unite with the Nashua and Lowell Corporation of New Hampshire, and form one corporation, with a railroad from Lowell to Nashua.

An act was also passed authorizing railroad corporations created by the commonwealth, or by the concurrent acts of the commonwealth and any adjoining state, to contract with other like railroad corporations, whose roads entered upon or connected with their road, to perform all transportation of persons and freight upon and over their railroad, which was the first law authorizing contracts between connecting railroads.

April 9, 1839, the Nassua Railroad Company was incorporated to build from the termination of the Boston and Worcester Railroad, in Worcester, to the New Hampshire state line.

No other Massachusetts railroad corporation was created in 1839, but the Eastern Railroad Company was authorized to construct a branch from Salem to Marblehead, upon a specified course.

In the meantime Connecticut and Rhode Island had acted in respect to the construction of railroads.

As early as June, 1828, upon application of the directors of internal improvements of Massachusetts, Rhode Island had passed an act providing that if Massachusetts, or any corporation constituted by it for that purpose, should within six years construct a railroad from Boston to the state line of Rhode Island, in the direction of Providence, the commonwealth of Massachusetts, or such corporation might extend such railroad to tide-water in Providence, or to any intermediate point, and authorized the taking of land in Rhode Island for that purpose, by the commonwealth of Massachusetts, or the railroad company created by it, to construct the road, provided the road should not be constructed until the damages of land-owners were estimated and paid, or deposited in court for the use of the owner.

In October, 1831, Rhode Island incorporated the Boston and Providence Railroad Company, to construct a railroad from Providence to the Massachusetts state line, and from Providence to other places in Rhode Island.

This charter gave an exclusive route from Providence to the Massachusetts line, and required the corporation to purchase the Providence and Pawtucket Turnpike Road, then owned by the state, at the option of the state, for \$25,000, within five years, and if the same was not so purchased it gave the railroad corporation the right to take it upon paying damages. It also exempted the capital of the corporation from every species of taxation for twelve years from the opening of the road, and provided that at least one of the directors, being a stockholder, should be an inhabitant of Rhode Island, and that such further number of directors should be inhabitants of Rhode Island as should be "in relative proportion to stock owned by citizens of that state."

In January, 1832, the right of this company to construct to other places in Rhode Island was repealed, except as to an extension in Providence to places adjoining Providence River or Narragansett Bay.

In June, 1832, Rhode Island incorporated the New York, Providence and Boston Railroad Company, to build from Providence to the Connecticut state line, and gave the company an exclusive route for thirty years between those points for ten miles on either side of the route.

This charter gave the state of Rhode Island the right to take one thousand shares of the stock, and gave to citizens of Rhode Island the right to take two hundred thousand shares of the stock with the provision that if the state did not take its thousand shares, those shares should be offered to citizens of Rhode Island.

It also exempted the property of the corporation from every species of taxation for twelve years, unless its profits amounted to six per cent., and provided that in no case should it be taxed at a higher rate than banks.

At the same session, the Rhode Island and Connecticut Railroad Company was incorporated to build from Providence to the Connecticut line, in the direction of Norwich "with reference to the construction of a railroad from Norwich to New London."

June 26th, 1833, the New York, Providence and Boston Railroad Company, and the New York and Stonington Railroad Company, a corporation under the laws of Connecticut, were united and made one corporation by the name of the New York, Providence and Boston Railroad Company.

May 10th, 1834, the Boston and Providence Railroad and Transportation Company was incorporated to build from the line between Massachusetts and Rhode Island, at the termination of the road, then being constructed by the Boston and Providence Railroad Corporation, from Boston, to tide-water in the city of Providence, with the right to establish water communication across the Providence river to a connection with the road of the New York, Providence and Boston Railroad.

March 7th, 1835, the legislature of Massachusetts authorized the Boston and Providence Railroad Corporation to contract with the Boston and Providence Railroad and Transportation Company for the use of its railroad, stations, etc.

And in 1846, the Boston and Providence Railroad Corporation was authorized to hold all the stock of the Boston and Providence Railroad and Transportation Company, thus making the road one from Boston to Providence.

In October, 1835, the Fall River and Providence Railroad Company was chartered to build a railroad from Taunton river, opposite the village of Fall River, to meet the Boston and Providence Railroad, in Seekonk, with the right to unite and

form one corporation with the Fall River Mill Road Railroad and Ferry Company, a corporation under the laws of Massachusetts, for the purpose of constructing that portion of the road within Massachusetts.

In June, 1636, the New Bedford and Fall River Railroad Company was incorporated to build from Fall River, to connect with the Fall River and Providence Railroad, a corporation under the laws of Massachusetts, with the provision that after the first meeting of the corporation, the stockholders in the Fall River and New Bedford Corporation, created by Massachusetts, for the purpose of constructing a railroad from Fall River to New Bedford, through that portion of the road, in Massachusetts, should be stockholders of the Rhode Island Corporation, and that both corporations should form one corporation under the name of the New Bedford and Fall River Railroad Company.

January session, 1837, the Pawtucket and Providence East Turnpike Corporation was authorized to straighten, widen, and extend its road to a connection with the Boston and Providence Railroad at India Point, and also to build a branch from the New York, Providence and Boston Railroad, in Providence, to Central Falls, and up the valley of the Blackstone river to the state line of Massachusetts, provided, that no regulation for the use of its road should be prescribed that should exclude individuals residing on the road "from traveling on the same in private cars."

No action was taken in Connecticut until May, 1832, when the Boston, Norwich and New London Railroad Company was incorporated to construct a railroad from Norwich towards the city of Boston, and from Norwich to Long Island Sound, with authority to perform transportation thereon.

At the same session the Sharon and Salisbury Railroad Company was created to construct a road from the New York state line, in Sharon, at a point where the road of the New York and Albany Railroad, a New York corporation, should intersect the state line, to a point in the Massachusetts state line where the Berkshire and New York Railroad, or any other railroad in Berkshire county, should intersect said line.

This charter also provided that any railroad company, created under the laws of New York, to construct a railroad from New York to Albany, might extend its road over all or any part of the route of the Sharon and Salisbury Railroad, with all the powers in Connecticut which that corporation had, by virtue of its charter.

At the same session, the New York and Stonington Railroad Company was incorporated, to build from Stonington to the eastern boundary of the state.

And at the May session, 1833, this corporation was authorized to unite with the New York, Providence and Boston Railroad Company, a corporation under the laws of Rhode Island, and form one corporation under the name of the New York, Providence and Boston Railroad Company.

At the same session the Hartford and New Haven Railroad Company was incorporated, to build a railroad from Hartford to New Haven, to the navigable waters of New Haven harbor.

The only railroad legislation in Maine, prior to 1840, consisted of acts passed to incorporate the Calais Railway Company in 1832, for the transportation of lumber and other merchandise, at specific rates fixed in the charter, and an amendment of the charter in 1837, giving the company general powers to maintain a railroad for the transportation of passengers. An act in 1832, incorporating the Bangor and Old Town Railway Company, for the transportation of merchandise and passengers between Bangor and Old Town, at specific rates; and an act passed in 1833, to incorporate the Bangor and Piscataquis Canal and Railroad Company, to form a line of railroad communication from tidewater, at the mouth of the Penobscot river, in

Bangor, to Williamsburg, and also to construct canals to be used in connection with the railroad.

In New Hampshire no action in respect to railroads was taken until 1835, when the Concord Railroad Corporation was chartered to construct a railroad from the Nashua and Lowell Railroad in Nashua to Concord, and with power to build to the Massachusetts state line, so as to connect with the Boston and Lowell Railroad whenever Massachusetts should grant the right so to do.

In the same year the Keene Railroad Company was incorporated to build from Keene to the state line in the direction towards Worcester, Mass., with authority to extend from the state line to connect with the Worcester and Lowell Railroad whenever Massachusetts should authorize it so to do.

At the same session the Boston and Maine Railroad was incorporated to build from the state line at Haverhill, Mass., to the state line of Maine; and in 1838 the corporation was authorized to change the location of its road, so that it should run northerly and easterly from the termination of the Andover and Haverhill Railroad to the state line at Keene, N. H.

In 1841 the Boston and Maine Railroad and the Boston and Portland Railroad Corporation (a corporation created under the laws of Massachusetts by the union of the Wilmington and Andover and the Andover and Haverhill Railroads) were united and made one corporation by the name of the Boston and Maine Railroad.

In Vermont railroad legislation was had as early as 1831, when the Rutland and Whitehall Railroad Company was incorporated to build a railroad "betwixt the East Village of Rutland and the line of the State of New York," and to transport persons and property "by the power and force of steam, of animals, or of other mechanical or other power, or any combination of them."

At the same session the Bennington and Brattleboro Railroad was chartered to build from Bennington to Brattleboro.

In 1832 the Vermont Railroad Company was created with "the exclusive right and power" to build from the eastern shore of Lake Champlain by the valley of the Onion river to such point on the Connecticut river as would meet the railroad "contemplated in New Hampshire to pass by Concord toward Boston."

In 1835 the Vermont Central Railroad Company was chartered to build from Lake Champlain, following the Onion river valley to such point on the Connecticut river "as will most conveniently meet the railroad contemplated in New Hampshire to pass by Concord towards Boston."

No other railroad corporations were created in Vermont prior to 1840. The New England states were behind the middle and the southern states in the matter of railroads. Maryland had incorporated the Baltimore and Ohio Railroad in 1827, the work upon which was begun July 4, 1828, and which was opened in 1830, and in 1831 had been extended to Frederick sixty-two miles, and in 1832 to Point of Rocks (sixty-nine miles from Baltimore).

New York had chartered the Mohawk and Hudson Railroad (afterwards the Albany and Schenectady), upon which work was commenced in 1830, and it was opened in 1831.

The Baltimore and Ohio and Mohawk and Hudson were at first operated by horse-power, the first locomotive engine in the United States being used upon the Mohawk and Hudson, and the second, probably the first constructed in the United States, on the Baltimore and Ohio in 1831. The locomotive used upon the Mohawk and Hudson was made in England, and weighed six tons, which was found to be too

heavy, and one weighing three tons, manufactured in the United States, was substituted for it.

South Carolina had chartered and constructed a railroad, which was opened in 1833, one hundred and thirty-five miles, from Charleston to Hamburg (afterwards Augusta, Ga.), and was then the longest continuous line of railroad in the world.

The cautious conservatism of Boston then lost to New England interests advantages in transportation which they have never since been able to regain.

Railroad construction in New England began on the line from Boston to Lowell in November, 1831, and soon after on the lines from Boston to Providence, and Boston to Worcester. The first locomotive was used from Boston in March, 1834, on the Worcester road, then laid with rails to Newton, about ten miles.

The Dedham Branch of the Providence road was opened December 28, 1834, and operated by horses for some years, and on June 11, 1835 the main line to Providence was opened. On the 27th of the same month the line was opened from Boston to Lowell, and July 4, 1835, the line was opened from Boston to Worcester, having been opened from Boston to Westboro in November, 1834.

November 10, 1837, the line was opened from Providence to Stonington, and December 28, 1838, the line was opened from Lowell to Nashua. On October 1, 1839, railroad communication was opened from Boston to Springfield, and the opening of the line was celebrated in Springfield on October 3, 1839. Edward Everett, the orator of the day, described a railroad in the following language :

"Let us contemplate the entire railroad, with its cars and engines, as one vast machine. What a portent of art! Its fixed portion one hundred miles long, its movable portion flying across the state like a weaver's shuttle. By the seaside in the morning, here at noon, and back in the compass of an autumnal day! And the power that puts all in motion, most wondrous—a few buckets of water! Did we live in a poetic age, we have now reached the region where the genius of steam communication would be personified and embodied. Here we should be taught to behold him, a Titanic Colossus of iron and of brass, instinct with elemental life and power, with a glowing furnace for his lungs and streams of fire and smoke for the breath of his nostrils! With one hand he collects the furs of the Arctic Circle, with the other he smites the forests of western Pennsylvania. He plants his right foot before the sources of the Missouri, and his left on the shores of the Gulf of Mexico, and gathers in his bosom the overflowing abundance of the fairest and richest valley on which the circling sun looks down."

December 14, 1839, the railroad between Hartford and New Haven was opened for travel, and in March, 1840, the road was opened from Worcester to Norwich.

November 28, 1840, the railroad from Bangor, Maine, to Oldtown, known as the Bangor and Orono Railroad, about twelve miles long, was opened.

Construction eastward from Boston began on the line from Wilmington on the Boston and Lowell Railroad, which was opened to Andover in 1836, and to Exeter, N. H., in 1840, while the Eastern Railroad, work on which was begun in East Boston July 22, 1836, was, after many difficulties of location and construction, opened from Boston to Portsmouth, N. H., on the 9th of November, 1840.

January 1, 1840, there were four hundred twenty-six and a half miles of completed railroad in the New England states, shown on the accompanying map and distributed as follows :

In Maine	10
New Hampshire	22½
Vermont, none	
Massachusetts	236
Rhode Island	41
Connecticut	117

In 1841 the Eastern Railroad was extended from Exeter to Dover, and in February, 1843, to a junction at Berwick with the Portland, Saco and Portsmouth Railroad, which was opened in connection with the Eastern Railroad, from Portland to Portsmouth, November 31, 1842. In 1852, this road reached a station on Causeway street, Boston. Before that it ended at East Boston and connected with the city proper by a ferry.

December 1, 1842, the Housatonic Railroad was opened for travel from Bridgeport to the Massachusetts line, and December, 1844, the Hartford and Springfield Road was opened between Hartford and Springfield.

In 1845, the Boston and Maine, extending from Wilmington on the Boston and Lowell Railroad, constructed an independent line from Andover to Boston, known as the Boston and Maine Extension Railroad.

In March, 1842, the Fitchburg Railroad was chartered, and opened its line for travel from Boston to Waltham December 20, 1843, and to Fitchburg March 5, 1845.

In 1844, the Old Colony Railroad was chartered, and it opened its line from Boston to Plymouth November 10, 1845. Its first terminus in Boston was in the Lincoln-street station of the Boston and Worcester Railroad, but in 1847 it extended its line to an independent station on Kneeland street.

The road from New Haven to New York was opened in January, 1849, and from New London to New Haven July 22, 1852. But it was not until 1858 that the road was opened between Stonington and New London, making for the first time a completed railroad line between Boston and New York by the way of Providence.

The Providence and Worcester Road was opened in October, 1847.

In 1846, there were seven lines of railroad extending from Boston—The Old Colony, the Providence, the Worcester, the Fitchburg, the Lowell, the Boston and Maine, and the Eastern. Only one, the New England, was afterwards added. That road, originally the Boston and New York Central, afterwards the Boston, Hartford and Erie, was opened to Broad street, now Atlantic avenue, Boston, in 1855.

The railroad connections of Boston and New England with the west were opened, by the way of Albany, in 1841; by Montreal, in 1851; and by Fitchburg and the Hoosac Tunnel, in 1875. The Concord Railroad was opened from Nashua to Manchester July 4, 1842, and to Concord in September, 1842.

In June, 1848, the Northern Railroad, which was incorporated December 27, 1844, opened its line from Concord to Hartford, Vermont (*i. e.*, White River Junction), where it connected with the Vermont Central Railroad, which was commenced at Windsor December 15, 1845, and opened to Bethel June 26, 1848; to Northfield, December 5, 1848, and to Lake Champlain, at Burlington, January 1, 1850.

It is worthy of note in this connection that as early as 1827, John L. Sullivan, a Massachusetts engineer, suggested the practicability of a line of railroad from Boston to Lake Ontario, crossing Lake Champlain by a ferry, and thus connecting Boston with the great lakes. Following this, and doubtless in consequence of the charter of the Boston and Lowell Railroad Corporation to build a railroad from Boston to Lowell, a convention of forty-eight delegates from New York, Massachusetts, New Hampshire and Vermont was held at Montpelier, Vermont, October 6, 1830, to consider the project of "a national railroad" from Boston to Lake Champlain, and thence to Ogdensburg, New York.

The Ogdensburg Railroad, which was chartered by the state of New York May 14, 1845, had constructed its road one hundred and eighteen miles from Rouse's Point, on the Champlain, to Ogdensburg, at the foot of the navigation of the great lakes, and opened it for use October 1, 1850, and a connection was made by what was

then known as the Montreal Railroad, between Ogdensburg and the Vermont railroads. January 1, 1851, the line was completed from Boston to Montreal by the opening of the Vermont and Canada Railroad.

The cost of the Massachusetts roads in 1840 was \$36,785 a mile, including equipment. It is impossible to fix accurately the cost per mile of the roads in the other states, but it is probably reasonable to say that the entire 426½ miles of New England railroad, at that time, had cost \$35,000 a mile, or \$14,927,500.

They were regarded as experiments, and capital was obtained slowly. In 1838, the Boston and Providence was able to sell but 339 shares of new stock in an increase of 1,300 shares, and in the same year the Boston and Lowell sold iron which it had imported for a second track because it had no money with which to pay for it.

The owners of the Amoskeag water-power offered a bonus of \$100,000 to any corporation that would build the road from Nashua to Manchester, and the Locks and Canals Company, of Lowell, paid the Lowell Railroad a dividend of 16⅔ per cent. as an inducement to build the road from Boston to Lowell.

Between 1840 and 1850, however, railroad construction in New England increased rapidly, and in July, 1851, there were 2,845 miles of railroad in operation, distributed as follows:

Maine	281
New Hampshire	455
Vermont	366
Massachusetts	1,142
Rhode Island	50
Connecticut	551

The cost of these railroads was \$106,305,941, or an average of about \$40,197 a mile.

There were also under construction in 1851, 567 miles more, of which 179 were in Maine, 58 in New Hampshire, 168 in Vermont, 67 in Massachusetts, 30 in Rhode Island, and 65 in Connecticut.

In the meantime the population of Boston had increased from 83,979 to 138,788, and its valuation had increased from \$94,581,600 to \$179,525,000.

In 1860 the railroad mileage of New England had increased to 3,360 miles; in 1870, to 4,494 miles. In 1873 the mileage of New England railroads was 4,574 miles, which had cost \$230,609,794, or \$50,418 a mile, and their gross earnings were \$48,519,835, or a little over 21 per cent. of their cost, while their net earnings were \$14,436,481, or 6.26 per cent. of their cost.

Their capital stock was \$129,014,748, or about 56 per cent. of their cost, on which they paid dividends of 6.64 per cent., amounting to \$8,569,877.

In 1880 the mileage had increased to 5,977 miles, the capital to \$191,097,230, the stock to \$366,159,498, and the debt, funded and unfunded, to \$145,062,268.

In 1885 the mileage was 6,412 miles, the stock \$204,311,043, and the debt \$156,355,845.

In 1890 the mileage was 6,832 miles, the stock \$236,186,197, and the debt \$185,941,076.

In 1895 the mileage had increased to 7,398 miles, the stock to \$287,280,127, and the debt to \$189,067,625, making the total of capital and debt \$476,347,752.

From 1880 to 1895 the gross earnings of the New England roads increased from \$48,755,609 to \$82,945,401, and during the same time the amount paid in dividends increased from \$7,999,191 to \$13,990,999, showing an average dividend of something less than 5 per cent. per annum.

During the ten years, from 1885 to 1895, the freight tonage increased from 30,-186,233 to 42,183,249 tons, or about 40 per cent., while the number of passengers carried increased from 78,763,179 to 116,069,178, or about 47 per cent.

The first result of the operation of the New England railroads was more profitable than it subsequently proved. Taking the Massachusetts roads as a fair illustration, it appears that while in 1842 they earned 5.26 per cent. on their cost, and in 1846, 7.2 per cent., and in 1850, 6.49 per cent., yet in 1854 they earned only 5.52 per cent.

During the four years, from 1850 to 1854, the net earnings of the seven different roads, leading out of Boston, were reduced 38 per cent. The result was that the prices of railroad stocks greatly decreased.

In 1845 the market value of the stock of the Eastern Railroad was \$109; of the Maine, \$112; the Fitchburg, \$120; the Lowell, \$120; the Worcester, \$119; the Western, \$102; and the Providence, \$111.

In 1856 the market value of the stock of the Eastern Railroad was \$46; of the Maine, \$84; of the Fitchburg, \$74.50; of the Lowell, \$63; of the Worcester, \$85; of the Western, \$89; and of the Providence, \$64.

When railroads were introduced in New England there was not a town away from the seaboard of over 4,500 population. Worcester had but 3,000, Springfield 4,000, and Lowell, Lawrence and Manchester were not incorporated.

From 1845 to 1865 the products of New England industry quadrupled, while the products of agriculture increased less than one-eightieth of one per cent. of the total increase, and its relative importance decreased from more than eight per cent., to less than three per cent. of the whole product. During the same period foreign commerce increased about three and one-half per cent. of the total increase, while manufactures increased \$326,000,000, or seventy-seven per cent. of the whole increase.

When railroads were opened the rates were from eight to twenty-five cents a ton, per mile, on freight, and from six to eight cents a mile on passengers.

In 1846 the rates had fallen to about three cents per passenger and three cents per ton, per mile, in Massachusetts, though the reduction had not been as great in the other states.

In 1850 the passenger rate in Massachusetts was 2.92 cents, and in 1854, 2.91 cents per mile. One cause of this reduction was the carriage of season passengers at less than one cent a mile.

In 1868 the average passenger rates had increased to about four cents, varying from 2½ to 12.

Ten roads charged less than three cents, seven more than three, and the average ranged from 1.95, on the Boston and Providence, to 6.52 on the Housatonic.

In 1874 the average passenger rate was about 2½ cents.

In 1880 the average through and local passenger rates were about 2¼ cents.

In 1885 the average rate had fallen to about two cents a mile.

In 1890 the average rate on the Massachusetts roads was 1.83, on the New England roads 1.912, and on all roads of the United States 2.167.

In 1895 the average Massachusetts rate was 1.78 per mile.

In 1865, the four leading Massachusetts roads received an average rate of 2.59 per mile for passengers, and in 1895, an average rate of only 1.77, a reduction of about 32 per cent.

The freight rates decreased from the opening of the roads until in 1865 the average rate per ton per mile was about 4½ cents.

In 1870, the average rate was about 3.25; in 1875, 2.75; in 1880, 2.25; in 1885,

about 2 cents; in 1890, $1\frac{3}{4}$; in 1895, about $1\frac{1}{2}$ cents. The reduction from 1865 to 1895 was about 70 per cent.

The average rates in Massachusetts during the same time decreased from 4.16 to 1.28 cents per ton per mile.

It was at first supposed that railroads could not be constructed in New England by private capital, but that they must be built by the state, or at least aided by state credit and capital.

In 1829, Governor Lincoln, of Massachusetts, who was very earnest in advocating the construction of railroads, in his speech to the legislature, concurred in the recommendation of the commissioners upon the construction of a railroad from Boston to the Hudson, that the road be built by the state, and said that it was much to be feared that without state aid such works

"cannot be undertaken, or, if undertaken, that it must be upon grounds of privilege and power repugnant to the sentiments of the people, inconsistent with the genius of a free government, and impairing the control and future enjoyment by the community of the capacities of country for other purposes, and possibly still higher objects."

These were doubtless the views of the men of business and of commerce, and if they had prevailed, Massachusetts might have had a system of state railroads. But they were not the views of the farmers who were then the controlling power in the legislature, and no state aid was given for the construction of the first railroad.

None of the New England states except Massachusetts have given direct pecuniary aid in the construction of railroads. Maine aided to some extent by grants of land, and the other states have given indirect aid in some instances, by relief from taxation, but not to any large extent.

Massachusetts, however, early adopted the policy of state aid in the construction of railroads. April 4, 1836, a subscription of a million dollars, or one-third the capital of the Western Railroad, was authorized. November 20, 1837, \$400,000 of state scrip was authorized to be issued to aid the construction of the Norwich and Worcester Railroad. April 18, 1837, \$100,000 of state scrip was authorized to be issued in aid of the construction of the Andover and Haverhill Railroad. April 18, 1837, the issue of \$500,000 five per cent. twenty-years state scrip was authorized, to aid in the construction of the Eastern Railroad. February 21, 1838, additional aid was given to the Western Railroad by the issue of \$2,100,000 five per cent. thirty-years state scrip, payable in London.

When this scrip was sent to the Barings in London, for sale, it was, after some time, returned, with the statement that no offer could be obtained for it, because owing to the repudiation of a portion of its debt by the state of Pennsylvania, there was no sale for American stocks in England at any price.

April 17, 1838, the issue of \$50,000 state scrip was authorized, to aid the construction of the Nassua and Lowell Railroad, and April 9, 1839, a similar issue was authorized, to the same amount, to aid the construction of the Boston and Portland Railroad.

March 18, 1841, \$700,000 additional state scrip was authorized to be issued in aid of the construction of the Western Railroad. April 5, 1854, the issue of \$2,000,000 five per cent. thirty years state scrip was authorized, to aid the construction of the Troy and Greenfield Railroad and the Hoosac Tunnel, and thereafter other issues of scrip in aid of the Troy and Greenfield Railroad, were authorized, the result of which was the issue of loans which, with interest to maturity, amounted to \$29,257,913.44, in aid of this enterprise. The commonwealth was finally compelled to take posses-

sion of and operate the Troy and Greenfield Railroad and the Tunnel, which it did for some years, but finally sold out to the Fitchburg Railroad Company in 1887, for \$5,000,000, in four per cent. bonds, and \$5,000,000 common stock of that company. The net receipts of the commonwealth from this road and property were about \$440,000, leaving a net expense to the state of \$28,817,913.44.

In 1867, and in 1869, state scrip was authorized to be issued in aid of the construction of the Boston, Hartford and Erie Railroad, to the amount of \$5,000,000, for which the commonwealth ultimately received stock and bonds which were finally disposed of, leaving a net loss to the state of \$8,092,190.82.

All the roads thus aided repaid the loans with the exception of the Troy and Greenfield, and Boston, Hartford and Erie, and with the exception of several hundred thousand dollars of premium on gold paid on account of the Eastern Railroad loan, which that company did not repay to the commonwealth.

From 1862 to 1879, the commonwealth paid as premium on gold bonds issued in aid of railroads, \$3,703,556.86. This made a total expenditure of \$40,613,661.12, for which the commonwealth has received securities, bonds and stock estimated to be worth not to exceed \$6,175,000. The net pecuniary result of Massachusetts' state aid to railroads has been a loss of \$34,438,661.12.

State ownership, as such, has existed only in the case of the Troy and Greenfield Railroad, where the state of Massachusetts took that road and the tunnel upon a mortgage, and operated them for several years. Such ownership has been advocated, however, at various times. In 1866, prior to the union of the Worcester and the Western Railroads as the Boston and Albany, it was advocated by Josiah Quincy.

In 1870 and 1871 the railroad commissioners of Massachusetts urged in their annual reports, and in arguments before legislative committees, that the state, which then owned the Troy and Greenfield Railroad, should acquire the Fitchburg Railroad, and create a state road from Boston to the Hudson river, to be operated by the state in competition with, and as a check upon, the rates of the other roads owned by private corporations. These recommendations, however, received no favor from the Legislature, and they have not since been renewed.

On the contrary the state, by its sale of all interest in the Boston and Albany Railroad, and in the New York and New England Railroad, has gradually parted with its ownership in railroads, and there seems no present probability that the people wish to have the state concerned in the ownership or operation of railroads. At the same time, state supervision is being pushed to such an extent that it seems likely to bring up the question whether private capital is safe in enterprises where the state seeks to control income, but cannot control expenses. And from this, with other social causes now at work, it is not improbable that the question of state ownership may assume practical importance in the near future.

In Massachusetts the state has the power to assume the ownership of all railroads by the reserved right of purchase in their charters. And in the other states such ownership may be acquired under similar statutes, or by compulsory purchase by the right of eminent domain.

In 1893, the New England roads had a capital of \$247,236,550, of which \$41,862,402 was preferred, and \$205,374,148 common stock, and a debt of \$184,484,779, of which \$155,320,649 was funded, and \$29,164,130 unfunded, making a total of stock and debt of \$431,721,329, which was a little over four per cent. of the capital and debt of the railroads of the United States, and \$58,459 per mile of road, or \$4,962 less than the average capital and debt per mile of all the railroads of the United States.

In 1894, the capital and debt had increased to \$447,126,796, and in 1895, to \$458,744,400, of which \$258,759,467 was in the form of stock, \$174,240,890 funded debt, and \$25,744,043 unfunded debt.

In 1893, these roads paid state and municipal taxes amounting to \$3,651,450. In 1894, the taxes amounted to \$3,930,169, and in 1895, \$3,953,127, these taxes being about four and a quarter per cent. of the gross earnings of the roads from operation.

For the year ending June 30, 1893, the New England railroads earned from operation of their lines \$86,895,478. This would amount to nearly \$20 for every person in the New England states during that year.

The roads spent for operation during that year, including wages paid to 65,521 employees, \$60,801,378, leaving an income from operation alone of \$26,094,100. Adding to this income \$8,257,763, as income from other sources than operation, including dividends on stocks of leased lines, interest on securities, etc., the total income was \$34,351,863. From this total income they paid \$19,984,465 as interest, rentals, taxes and other fixed charges, leaving a balance of \$14,367,398, out of which \$13,471,736 was distributed in dividends upon stock, leaving a surplus of \$895,662.

In 1894, the gross earnings were reduced to \$78,262,629, and although the operating expenses were reduced to \$54,262,783, the fixed charges increased to \$21,796,409, and after the payment of \$13,589,633, there was a deficit in the business of that year amounting to \$2,447,152.

In 1895, the gross earnings increased to \$83,101,582, the operating expenses to \$56,733,314, fixed charges to \$21,979,020, and the dividends to \$13,929,824, and the result of the year was a deficit of \$300,561.

In 1894, the number of employes was reduced to 58,272, and in 1895 it was increased to 60,593.

The New England states have a greater railroad mileage according to territory than any European country. In 1895 they had substantially 12 (11.77) miles of line for each one hundred square miles of territory, and over 14 (14.11) miles of line for each ten thousand inhabitants, varying from five and a half miles for each one hundred square miles in Maine to twenty-six and one-half miles for each one hundred square miles in Massachusetts.

Europe has less than four (3.62) miles of line for each one hundred square miles of territory, and less than four (3.84) miles for each ten thousand inhabitants, while only Germany, Great Britain, France, Belgium, Holland and Switzerland have more than ten miles of railroad for each one hundred square miles.

The railroads of the United States have a little over six miles of line for each one hundred square miles of territory, and they have over twenty-six miles of railroad for each ten thousand inhabitants.

On the whole, the returns upon capital invested in New England railroads have been moderate. A few lines have made ample returns in dividends of earnings and of stock, or increase of value without increase of capital, and consequent leases at high dividends for long terms, but many more have paid small dividends, and in many cases the capital has been entirely lost. In 1894, more than one-fifth of the common stock in New England railroads paid no dividends, and four per cent. of the funded debt paid no interest.

The New England states have been wise and conservative in the supervision and regulation of railroad transportation. The first effective railroad commission in the United States was established in Massachusetts in 1869, and given large powers of supervision of the management and operation of railroads, but only the power to recommend changes of rates, and management and operation to the railroad corpor-

ations. The theory on which this commission was established was that publicity—knowledge on the part of the public of what the railroad corporations were doing—would be more likely to remedy any evils in their management, than an arbitrary power in the hands of a commission to compel changes in rates and management.

This has been substantially the theory upon which the other New England states have acted, and the result has been a railroad service constantly improving in character, at constantly decreasing rates of charge, until it may fairly be said that the New England states have a better railroad service for less money than any other portion of the United States.

At the same time railroad capital has by this method of supervision been made more secure, and money has for many years been obtained for railroad enterprises in New England at lower rates than anywhere else. One efficient cause of this has doubtless been the fact that the railroads of New England are owned in New England. Most of them were originally constructed as short, local lines by capital contributed from the people in the localities where they were built. And although they have by the necessities of business since been gradually combined into longer lines and united into larger and larger systems, until at the present time they are all substantially under the control of but a few corporations, their ownership has remained in New England, and their stock and debt are scattered among the people in comparatively small amounts.

As a rule the New England railroads are represented only by stock issued for capital actually expended in their construction and improvement. Roads have not been built with the proceeds of bonds issued with gratuities of stock. No inside construction companies have enriched the directors and officers at the expense of the shareholders and the ultimate injury of the public. The financial management of railroad companies in New England has been, with rare exceptions, sound and honest. In no other part of the country have the shareholders so much directed the management of their own property, and the directors so well performed their official duties. The result has been that while there are a few chapters in the financial history of New England railroads which are not creditable to the companies or the state, on the whole there has been but little to warrant just criticism in this direction.

The railroads of New England have been built under difficult physical conditions. The main lines were all built when engineering appliances were not what they subsequently became. There were no diamond drills, no giant gunpowder, dynamite, nitro-glycerine, or steam-shovels in use when the first New England railroads were constructed.

The maintenance and operation of these railroads have also been difficult, owing to the physical characteristics of the country and the character of the climate. In railroad building and operating, as in all other material matters, the people of New England have constantly struggled with the adverse forces of nature upon a rugged soil and in an inhospitable climate, and whatever has been accomplished has been reached with much greater difficulty than in other portions of the United States.

The most important development of New England transportation by rail, during the past few years, has been the increase of street railway travel by the use of electricity as motive power. The street railway was originally designed as a means of improving the communication in the streets of single towns or cities. It was held by the courts that such a railroad imposed no additional burden upon the street, but was merely a new method of traveling the streets, simply a vehicle drawn by horses upon rails in the street, which might be drawn in the same manner upon the street without rails.

In Massachusetts, for many years, the charters of street railways reserved to the cities and towns, in which the railways were located, the right to purchase the franchise and property of the railway company after ten years from the opening of the road upon payment of the par value of their stock, and ten per cent. per annum profit thereon, less dividends which had been received.

The first New England street railways were incorporated in Massachusetts in 1853, and the first which was put in operation was between Boston and Cambridge, in the spring of 1856. These railways did not outgrow the limits of cities and towns to any great extent until electric power was applied to their operation.

In 1866, in Massachusetts, and in 1875, in Connecticut, the local authorities of cities and towns were authorized to permit the use of any improved motive power on street railways, or, as they were then usually termed, "horse railroads." Previous to this such railroads had been specifically required by their charters, or the general law, to use horse-power only. In the other New England states authority to use any power, except horses, was given by special charters only, but electric power is now permitted either specifically by general law, or by statutes authorizing municipal authorities to permit its use.

Electric power was first used on street railways in Boston in 1888, and on the 30th of September, 1889, fifty miles of electric street railway in Massachusetts were in operation in that state, and five hundred and twenty-four miles were operated by horse-power. The increase of new lines operated by electric power, and the change of existing lines from horse power to electric power was so rapid, however, that in 1895, ten hundred and sixteen miles were operated by horse-power, and twelve hundred and forty-two by electricity.

A similar result, although not perhaps to so marked a degree, has followed in the other New England states. On June 30, 1895, there were in operation in New England sixteen hundred and eighty-eight miles of street railway, nearly all of which was operated by electric-power. This mileage was distributed as follows:

Maine, 91 miles; New Hampshire, 46 miles; Vermont, 29 miles; Rhode Island, 143 miles; Massachusetts, 1,078 miles; Connecticut, 299 miles, and was represented by \$42,093,900 of stock, \$33,140,800 of bonded debt, and \$7,303,774 of unfunded debt, making a total capitalization of \$82,538,474, or nearly \$50,000 a mile. The capital and debt per mile of the Massachusetts roads in 1896 was \$48,729.53, and the cost of the railways as reported by the several companies in that state ranged from \$11,737 to \$97,904 per mile. These Massachusetts companies carried in that year 259,794,308 passengers, or more than double the number of passengers carried in 1887.

The use of electric power on street railways has resulted in the construction of lines which are no longer mere street railways, but extend through cities and towns, and accommodate travel from city to city and town to town. The tendency in this direction is becoming more and more marked. Lines of fifty or sixty miles are not uncommon, and much longer lines are now projected. One line is projected to extend through the roads along the shore between Boston and Portland, and there seems to be no reason why, to the extent that such lines can be accommodated without interfering with other travel upon the highways, they may not be indefinitely extended through a large part of the New England States.

Steam railroads have also in recent years been given the right to use electric power. This was first done in Massachusetts in 1892, in Connecticut in 1893, in New Hampshire and Maine in 1895, and in Rhode Island in 1896. Steam railroads, however, have used this power only in an experimental way, the most noted experi-



Amos Stearns

ments being those of the New York, New Haven and Hartford Railroad, on the Nantasket Branch, a beach railroad in Massachusetts, and at New Britain, Conn. At Nantasket electric power has been successfully applied by the use of what is known as the third rail, that is, a rail laid in the centre of the ordinary steam railroad track, through which rail electricity is communicated from the power-house, instead of being communicated by a trolley wire stretched upon poles over the track.

The proper use of electric power by the third rail requires the abolition of crossings of the railroad and streets and highways at the same level, but upon a line where there are no such crossings there seems to be no reason why electric power thus applied may not be profitably substituted for steam, and it may be reasonably expected that the great improvements in transportation upon existing lines in the near future will be in the direction of preparing and equipping them for operation by electric power.



ONSLow STEARNS.

ISAAc STEARNS, the grandfather of the subject of this sketch, was a well-known and influential citizen of Middlesex County, in the state of Massachusetts. He held various local and state offices, and was for several years a member of the Executive Council. His son, John Stearns, was a prosperous farmer in Billerica, Mass., where his son, Onslow Stearns, was born August 30, 1810.

Mr. Stearns remained at home attending school and academy, and working on his father's farm until he was seventeen years of age. In 1827, he went to Boston, and was employed as clerk in the dry-goods jobbing house of Howe & Holbrook, a firm afterwards better known as J. C. Howe & Co. In 1830, he went to Virginia and was employed by his brother, John O. Stearns, in the engineering department of the construction of the Chesapeake and Ohio Canal. In 1833, he became associated with his brother in contracts for the construction of various railroads, among which were the Philadelphia and Columbia, the Germantown, the Philadelphia and Trenton, the Philadelphia and Norristown, the Delaware and Atlantic, the Camden and Amboy, the Brooklyn and Jamaica, the Philadelphia, Wilmington and Baltimore, the Elizabethtown and Somerville, and the Baltimore and Ohio Railroads.

In 1837, after his connection with these enterprises had terminated, he became, contractor in the construction of the Charlestown Branch Railroad, in Massachusetts, and of the Wilmington and Haverhill Railroad. The former of these became later a part of the Fitchburg Railroad, and the latter a part of the Boston and Maine. He also completed the construction of the Nashua and Lowell Railroad, of which road, on its completion in 1838, he became superintendent. In 1845, he resigned his position as superintendent, and was appointed agent of the Northern Railroad of New Hampshire for the purpose of building its road from Concord to West Lebanon. In May, 1852, he was chosen president of the Northern Railroad, and held that position until his death, twenty-seven years later.

Mr. Stearns was also general superintendent of the Vermont Central Railroad from 1852 to 1855, a short time a director in the Ogdensburgh Railroad, and from 1857 to 1875 a director in the Nashua and Lowell Railroad. He was also for a time president of the Sullivan Railroad, the Contoocook Valley and the Concord and Claremont Railroads. In the management of the various railroads, with which he

was connected, Mr. Stearns won a reputation for enterprise and shrewdness which few New England men acquired, and his services were sought beyond the geographical limits, to which his operations had been confined. In July, 1866, he was chosen president of the Old Colony and Newport Railroad, as the Old Colony Road was at that time called, and during his administration the Cape Cod Railroad and the New Bedford and Taunton Railroad were consolidated with the Old Colony and Newport under the name of the Old Colony Railroad. The South Shore and the Duxbury and Cohasset Railroads were also added to the system, and the Old Colony Steamboat Company was formed, and purchased the boats of the Narragansett Steamship Company. Of the Steamboat Company he was also made president.

In 1874 Mr. Stearns was chosen president of the Concord Railroad, and held that position until his death. In November, 1877, he resigned the office of president of the Old Colony Railroad, finding that its duties, superadded to those in other directions, were making serious inroads on his health. To the performance of all these duties he brought, perhaps, a more thorough equipment than was possessed by any man in New England, and one surpassed in completeness by few men in the country. Beginning his career at the foundation of railroad construction, there was no department in railroad management with the details of which he was not familiar. Few men have had imposed on them more arduous labors. To the performance of these he devoted not only his days, but many hours of the night, and to the pressure of their burden may be attributed his comparatively early death.

Nor did railroad interests absorb the whole of his time and attention. In 1862 he was chosen a Republican member of the New Hampshire Senate, and in 1863, having been rechosen, was president of that body. In 1864 he was a delegate at large from New Hampshire to the Republican National Convention at Baltimore, and on the 7th of January, 1869, was nominated for governor and was inaugurated to that office June 3 in that year. He was rechosen the next year in opposition to his expressed wishes and served for a second term. During his administration, which was characterized by a wise conservatism and an economical management of the finances of the state, the state debt was reduced nearly one-third and the state tax more than one-half. As chief magistrate he gave close attention to details, and no interest failed to receive his patient and careful study.

Mr. Stearns married June 27th, 1845, Mary A., daughter of Hon. Adin Holbrook, of Lowell, Mass., who, with all her children, one son and four daughters, survived him. In 1846 he made Concord, N. H., his permanent home, and there he died December 29, 1878. Mrs. Stearns died July 29th, 1895.

FRANK JONES.

FRANK JONES, son of Thomas and Mary Jones, was born in Barrington, N. H., September 15, 1832. His father was a farmer, and his son, Frank, was brought up in his early life as other farmers' boys were at that time, alternating long seasons of labor on the farm with short terms of attendance at the public schools.

When a boy of fourteen he drove a team loaded with charcoal to the city of Portsmouth, N. H., about twenty miles from his home, and sold it to Samuel Colburn, then proprietor of the Rockingham House. From that time the young boy became anxious to leave the farm and find a wider field for the display of the energies he possessed, and three years later, in 1849, he went to Portsmouth and became



Frank Jones 1182895

a clerk in the store of his brother, who carried on business as a dealer in hardware, stoves, tin-ware and household-furnishing goods. Then, as now, a part of the equipment of such a store consisted of one or more peddler carts, which were driven about the country, disposing of wares and collecting rags for paper stock. One of these carts was driven by young Jones until, at the end of four years, he had saved from his earnings a sufficient sum of money to enable him to buy a share in his brother's business. Not long after he bought out his brother's interest and continued the business alone until 1861, when he sold out to a younger brother and abandoned the business with which he had been connected since 1849.

Three years before he sold out the hardware business, in 1858, Mr. Jones bought an interest in the Swindlers' Brewery, an establishment started by John Swindlers, an Englishman, in 1854, and not long afterwards became sole owner. Under his direction the business of the brewery rapidly increased, and with the addition of a new malt-house in 1863, a new brewery built in 1871, another larger malt-house erected in 1879, and another new brewery added to the plant in 1887 so developed the proportion of his property and the magnitude of his business as to make his brewery equal, if not superior, to any other in the United States.

In 1857 Mr. Jones, associated with Chas. A. Sinclair, J. P. Cook and J. W. Johnson, bought of Henry Souther & Co., the South Boston Brewery, which was operated as the Bay State Brewery by the firm of Jones, Cook & Co., until 1889, when it was sold to the Frank Jones Brewing Company, Limited. This company now owns and operates the brewery at Portsmouth and that at South Boston, and Mr. Jones is the general manager. The plant of the former of these covers about eighteen acres of ground, and has capacity for an annual production of five hundred thousand barrels. The latter covers a large tract of ground, and is capable of producing one hundred and fifty thousand barrels annually.

Mr. Jones, however, has been active in wider fields of operation than those connected with the brewing business. He has seen something of political life, having served as mayor of Portsmouth in 1868 and 1869, and as a member of the Forty-fourth and Forty-fifth Congresses. In 1880 he was the Democratic candidate for governor of New Hampshire, and though defeated, received the largest vote that has ever been cast by the Democratic party in the state. He has also at two presidential elections been a Democratic candidate for elector. While mayor of Portsmouth he devoted his salary to public uses.

In railroad and other business enterprises he has been prominent. For many years he was a director in the Boston and Maine railroad, and for three years its president. He is president of the Portsmouth and Dover railroad, a director in the Worcester, Nashua and Rochester, and of the Upper Coos railroads, president of the Hereford railroad, and was a director in the Eastern and the Maine Central railroads for many years. He is president of the Portsmouth Trust and Guarantee Company, and a director in the New Hampshire National Bank in Portsmouth, and a trustee in the Lancaster Savings Bank; director in Colebrook National Bank, and trustee in Colebrook Guarantee Savings Bank, and director in Wolfboro Trust Company. He is also president of the Granite State Fire Insurance Company and the Portsmouth Fire Association, and a director and large owner in the Portsmouth Shoe Company. His administration of the affairs of the Boston and Maine railroad was especially brilliant. The consolidation of the Boston and Lowell railroad with its leased roads had been made before his accession to the presidency, but the succeeding consolidations, including that of the Eastern railroad, made May 9, 1890, which have resulted in placing the Boston and Maine in the front rank of American enterprise, were due

to his foresight and skillful management. He is the owner of the Rockingham House in Portsmouth and the Wentworth in New Castle, and both, planned by him, illustrate his enterprise and taste. In the Rockingham house he takes a special pride. It is where he sold his first load of charcoal when a boy of fourteen. It stands on the site of the residence of Gov. Woodbury Langdon before and after the Revolution. This residence was burned in 1781, and rebuilt in 1785. In 1830 it was bought by a company and converted into a hotel. In 1870, after it came into the possession of Mr. Jones, it was enlarged, and in 1884 was again burned. Mr. Jones rebuilt it at once, and it is now, as it has been for many years, a hotel without an equal east of Boston. The Wentworth, at New Castle, three miles from Portsmouth, magnificent in proportions and equipment, stands on a commanding situation overlooking mountains, the ocean, and points of historic interest, and is unsurpassed by any seashore hotel on the Atlantic coast.

September 15, 1861, Mr. Jones united in marriage with Martha Sophia, widow of Hiram Jones, who died in July, 1859, leaving one child, Emma J., who married Col. C. A. Sinclair and resides in Portsmouth.

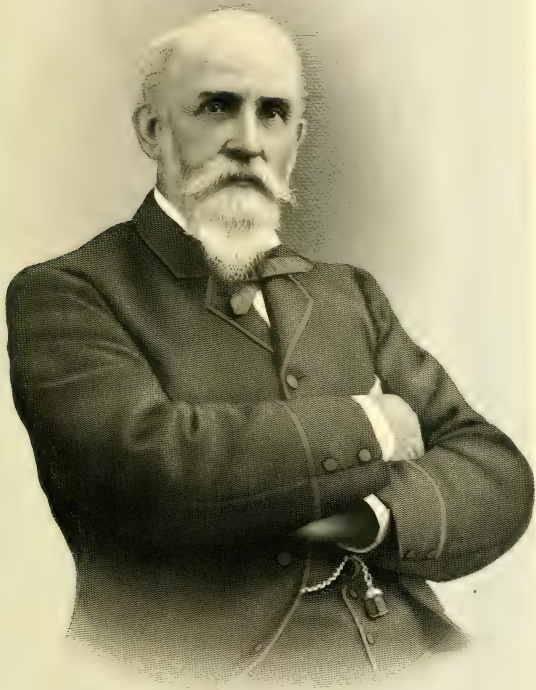
With all his varied interests in mercantile affairs the lessons of his boyhood, learned on his father's farm, are reaping their fruits in the management and enjoyment of a large landed estate, containing a thousand acres, about a mile from Portsmouth, which he keeps under a high state of cultivation and abundantly stocked with cattle and horses, with elegant parks, gardens, greenhouses and lawns. Maplewood Farm, as it is called, is more productive in its yields than other farm in the state. The contrast between this fine estate and the farm on which he learned his first lessons in labor is as great as that between the farmer's boy going to Portsmouth to begin his career and the wealthy capitalist wielding largely by his means and influence the destinies of his state.

HON. BENJAMIN A. KIMBALL.*

BENJAMIN AMES KIMBALL, youngest son of Benjamin and Ruth (Ames) Kimball, was born in Boscawen, New Hampshire, August 22, 1833. He is a descendant in the eighth generation from Richard Kimball, the emigrant ancestor of a numerous and honorable family. The line of descent is through Richard, Richard Jr., Caleb, John, Joseph, John, Benjamin.

Benjamin Kimball died in 1834, when the subject of this sketch was less than one year of age. The widowed mother resided a few years in Boscawen, when she removed to Lowell, and subsequently to Lawrence, Mass., where the son enjoyed for a season the advantages of the schools of those young and growing cities. In 1849 the family removed to Concord, New Hampshire. At this time John Kimball, an elder brother, was appointed superintendent of the Concord Railroad Car Shop, which had recently been erected. The growing lad stole many hours from play in a study of the locomotive and in watching their movements at the station. The boy was early wedded to his career, and his future studies and employment were the stages of development of the manager of railroads. To him it was a memorable event whenever Seth Hopkins, the renowned engineer of the Merrimack Valley, allowed him a ride upon the "Gen. Stark," the king of locomotives, fifty years ago. He soon was able to manage the locomotive in the yard, and occasionally was permitted

* By Ezra S. Stearns.



B. A. Kimball

to exhibit his skill upon the regular trips between Concord and Nashua. While yet a youth and at school he spent his allotted holidays and vacations at the railroad shops, and there found an agreeable recreation in his first essays at drawing and in perfecting the ideals of his own creation.

During his early residence in Concord he attended the high school of that city, and after a brief stay at the preparatory school in Derry, under Professor Hildreth, he was admitted, at the opening of the Chandler Scientific Department of Dartmouth College to the first class, and graduated in 1854. Three days later, he entered the employ of the Concord Railroad as draftsman and machinist. One of the dreams of the youth was early realized, and the opportunity to build a locomotive was promptly improved. The drawings of the schoolboy, revised with the intelligence of advanced study, were expressed in the construction of a locomotive, which, under the name of 'Tahanto,' did good service many years, and is still remembered by those familiar, with the Concord railroad of that time.

He was early promoted to superintendent of the locomotive department, and remained in that position—an able promoter of the interests of the corporation—until 1865, when he became an active partner of the well-known firm of Ford & Kimball, manufacturers of car wheels and brass and iron castings. The firm has done an extensive business, has been prosperous, and is an important industry of the city.

In the municipal affairs of Concord Mr. Kimball at all times has been an active and an influential factor. He has never failed to support any laudable measure of improvement and good government. He was prominently connected with the early plans for a permanent supply of water, and for several years was the chairman of the Board of Water Commissioners. For many years he has been prominently and usefully connected with the banks and other monetary institutions of the city.

At the present time, Mr. Kimball is director and president of the Concord and Montreal Railroad, and director or director and president of eight other railroad corporations of this state. He is a director and president of the Mechanics' National Bank, and a trustee of the Merrimack County Savings Bank, and he is also associated in the control of several important business corporations of the city and state. For several years he was a Visitor of the Chandler Scientific Department of Dartmouth College, and is now a trustee of the college, and president of the New Hampshire Historical Society.

From his early manhood, Mr. Kimball has been an active factor in the Republican party, and his influence has been potent in the councils of the organization. He has never sought office, and has seldom consented to accept the honors tendered by his political associates. He was a member of the House of Representatives in 1870, of the Constitutional Conventions in 1876 and 1880, and of the Executive Council during the administration of Governor Currier, 1885-87. He was an alternate delegate to the Republican National Convention, 1880, and a delegate at large 1892.

The impressive services in commemoration of the one-hundredth anniversary of the framing and promulgation of the Constitution of the United States were held at Philadelphia in September, 1887. The plans for that magnificent demonstration were formulated and adopted the preceding year and during the term of office of Mr. Kimball as councillor. At a meeting of the governors of the thirteen original states, held in September, 1886, Governor Lee, of Virginia, was selected as chairman, and soon after he issued an invitation to the governors of all the states to appoint commissioners to meet in Philadelphia, December 2, 1886. Governor Currier immediately appointed Mr. Kimball to represent New Hampshire on that important and eventful occasion. He attended the meeting and participated in the preparations

for a popular and official expression of allegiance to the Constitution of the United States. Several of the clubs and societies of the city extended hospitalities to the commissioners, and on the evening of December 2, a memorable dinner was given in their honor by the Historical Society of Pennsylvania, at which, as guests or as members of the society, many prominent citizens of the city, and many distinguished men from abroad were assembled. Mr. Kimball, by the tenor of his original appointment, was continued in office after his term as councillor had expired, and, ably and loyally representing his state, he participated with the other commissioners in the ceremonies of the memorable celebration September 15, 16 and 17, 1887.

In 1889 Mr. Kimball was appointed one of a commission to prepare plans and make recommendations for a new state library building. His associates were John W. Sanborn, Charles H. Burns, Irving W. Drew, and Charles J. Amidon. All the recommendations of the commission were accepted by the legislature, and supplemented by an act providing for a new building. Mr. Kimball was continued on the commission to build the new edifice, which was completed in the autumn of 1894. The building in all its appointments is an enduring testimonial of the good taste of the commission, and of their ready appreciation of the present and future needs of the people.

Such are the qualities of his mind and the forces of his character, that in any calling and under adverse conditions, Mr. Kimball would have occupied a commanding position. The record of his achievements in politics, in general business, and in the advancement of the material interests of the city and the state, is extended and honorable; but he is best known, and in any review of his life-work, he will first be recalled as a director in the corporations and as a manager in the railroads of the state. The Concord Railroad, later known as the Concord and Montreal, at all times has been a vigorous and prosperous corporation. It preserved, with little variation, the habit of summoning to its management the ablest and the most sagacious men at its command. Its continued success was not accidental. The progress of its growth and development was the creation of the thought and ability of controlling, masterful minds.

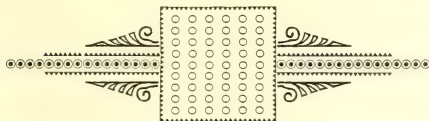
In the death of Onslow Stearns, which occurred in 1878, the Concord Railroad lost the services of one of the ablest and most sagacious managers of his time. The vacancy in the board of directors was one not easily filled. The lot fell upon Mr. Kimball, who was elected a director of the corporation in January, 1879. In the acceptance of the tendered trust he entered upon a long and laborious career. The time of his service has been eventful in railroad affairs, taxing to the utmost the superior qualities of his mind, the measure of his sagacity and the unyielding forces of his character. The contentions of rival corporations, the growing tendencies to an enlargement of systems, the uncertain voice of legislation and often the hostile attitude of public men, have surrounded the corporations with many conditions of uncertainty. Peace has only been secured as the fruit of war. In all the contentions of his time Mr. Kimball has been a conspicuous leader. In many instances the corporation has been successful or has suffered defeat in the measure of its reception or rejection of his well-matured and comprehensive suggestions. He was an unsuccessful advocate of a lease of the Boston and Lowell road, and of completing a permanent system by the absorption of the Northern and the Boston, Concord and Montreal, and not until the failure of his plans in that direction did he advocate the lease of the Concord and Montreal to the Boston and Maine. The smoke has not wholly cleared from many a field of battle, and prejudice has not as yet been dislodged from the citadel of judgment, but when viewed in the certain light of retros-

pection, the attitude of Mr. Kimball in the railroad controversies of his time will be accepted as the certain proof of his wisdom and sagacity.

In the lives of men and the progress of nations the parallels of development run close and far, sustaining the truism that the history of nations is mirrored in the biographies of the men who shape events and control destinies. Two generations ago, the inland towns of New England were not far removed from pioneer life. Labor was the common inheritance of all, the ordinary comforts of life were hardly secured and luxuries were the special privileges of sudden fortune or inheritance. Upon such foundations our republic was reared, and under such exacting conditions the life work of Mr. Kimball begun. His youth was a season of discipline, and in his earlier conquests his ability and self-reliance were the chief of his resources. With an unyielding purpose, in the enlargement of his activities and usefulness, he laid the sure foundation of an honorable and substantial life. His success is the merited reward of industry, ability and honesty. In all his words and deeds he is faithful to every personal and public obligation, and his commanding influence among his friends and in public affairs is the natural product of superior mental and moral qualities. His kindness solicits friendship, his wisdom invites confidence, and his integrity commands respect.

Mr. Kimball is rich in achievements. Possessing a vigorous mind, disciplined by a liberal education, and strengthened by a ripe experience in business affairs, he is an active factor in the welfare of the city, and the material development of the state. He formulates his opinions with prudence and caution, and fortifies his conclusions with the force of an inflexible will. With such habits of thought and qualities of mind, he is always consistent, always foremost, and fitted by nature and training for a leader among men, and a controlling force in the direction of affairs.

Mr. Kimball married, January 19, 1861, in Canterbury, N. H., Myra Tilton Elliott. Their only child, Henry Ames Kimball, was born October 19, 1864. He is associated with his father, in the firm of Ford & Kimball.



CHAPTER CXXXVII.

THE EDUCATIONAL HISTORY OF MASSACHUSETTS.

BY JOHN W. DICKINSON.



AT the close of the sixteenth century and the beginning of the seventeenth, a series of remarkable events occurred which indicated the entrance of the people of European countries into a new and progressive period of their history. One of the most important of these events was that great movement in the religious world which was destined to produce a great change in the relations which the church and civil governments had hitherto held to each other, and to the protection of individual citizens in the free enjoyment of the objects of their personal rights.

The Reformation created an imperative demand for both religious and civil liberty. After an experience of many years the reformers were forced to believe that free institutions could be established on no other sure foundation than general intelligence and virtue, and that these, in an important sense, are the products of a right education of the people. They believed, therefore, that "the education of the people ought to be the first concern of the state."

The proclamation issued in 1604, under James I., banished all hope from the minds of the Separatists in England of obtaining in their own country the conditions or the opportunities of enjoying unmolested their own chosen forms of religious worship. A twelve years' residence in Holland satisfied them that this country could not furnish for them a permanent home.

The Sabbath, for which they had great reverence as a sacred institution, was not observed in a manner they thought suitable to its divine appointment. They feared that the Dutch youth would exert a corrupting influence over their own children, and opportunities could not be obtained for an elementary school education.

Surrounded by such influences and deprived of the advantages of early training, the children of the Pilgrims were becoming restless under the restraints of Puritan ideas; so that they easily fell into the way of imitating the manners of the country in which they were living. The Pilgrims were English people, and they desired to have their descendants English people also. An experience of twelve years convinced them that a permanent residence in a foreign country would render impossible the accomplishment of this important end. For these reasons the Pilgrims resolved to leave the city that had been their resting-place for nearly twelve years, and to seek a new country where they could organize their own social and political institutions. On September 16, 1620, new style, after a sad parting from friends whom they might never see again, one hundred and two brave men, women and children set out from Plymouth, whither they had gone from Holland, on their ocean voyage to the new world, there to form a free state for themselves and their posterity.

In writing the history of education in Massachusetts, it is necessary to refer to these well-known events, and to the character of the men who produced them, that we may form a just estimate of the spirit of the educational system whose foundations they established. On the 21st of November, 1620, the "Mayflower" was safe at anchor in the harbor of Cape Cod, and the Pilgrims were ready to pass to the shore.

But as some signs of insubordination had appeared among the servants, it was deemed necessary that before leaving the ship a compact should be formed, uniting all into one political body, pledged to support such a government and such institutions as should by common consent be established. As this compact was the first written constitution the world ever knew, as it established principles of civil government that were then new and untried, and that required for their practical application the establishment of free public schools and compulsory education, it may be well in this connection to present a copy of the instrument, with the names of some of those who framed it and agreed to its provisions.

THE COMPACT.

"In the name of God, amen. We whose names are underwritten, the loyal subjects of our dread sovereign, Lord King James, by the grace of God, of Great Britain, France and Ireland, King, defender of the faith, &c., having undertaken for the glory of God and the advancement of the Christian faith, and the honor of our king and country, a voyage to plant the first colony in the northern part of Virginia, do, by these presents, solemnly and mutually, in the presence of God and of one another, covenant and combine ourselves together in a civil body politic for our own better ordering and preservation and furtherance of the ends aforesaid; and by virtue hereof to enact, constitute and frame such just and equal laws, ordinances, acts, constitutions and offices from time to time as shall be thought most meet and convenient for the general good of the colony, unto which we promise all due subjection and obedience."

"In witness whereof we have hereunder subscribed our names at Cape Cod the Eleventh of November, in the year of the reign of our sovereign Lord King James of England, France and Ireland the eighteenth, and of Scotland the fifty-fourth, Anno Domini 1620."

This compact was signed by all the adult passengers, and was the civil constitution of the colony during its whole history.

JOHN CARVER,	JOHN ALDEN,
WILLIAM BRADFORD,	SAMUEL FULLER,
EDWARD WINSLOW,	CHRISTOPHER MARTIN,
WILLIAM BREWSTER,	WILLIAM MULLEN,
ISAAC ALLERTON,	WILLIAM WHITE,
MILES STANDISH,	RICHARD WARREN,
STEPHEN HOPKINS.	

And others representing one hundred persons, or one hundred and two, including two hired seamen.

The history of new Plymouth as a civil community begins with the signing of the compact on November 11 (O. S.), 1620, and ends in 1692 by its union with the Massachusetts colony under the province charter in 1691, a period of seventy-one years, known as the colonial period.

The history of education in Massachusetts may be divided into three periods: The first may be called the colonial period, which will include the educational history of the two colonies, Plymouth and Massachusetts, while they were separate colonies.

The second period may include the history of education in the province of Massachusetts, from 1692 to the American Revolution, 1776, called the provincial period.

The third period may include the educational history of Massachusetts from the Revolutionary War (1783) to the present day, known as the constitutional period.

PLYMOUTH COLONY.

The territory of the colony included the counties of Plymouth, Barnstable and Bristol. Previous to 1663 the incorporated towns were Plymouth, Duxbury, Scituate, Sandwich, Marshfield, Barnstable, Yarmouth, Taunton, Rehoboth, Eastham, Bridgewater and Middleborough.

COLONIAL PERIOD.—From the records of Plymouth we learn that previous to 1663 there were no free public schools in the Plymouth colony, except such as were voluntarily established either by towns or by private enterprise. It appears to be somewhat behind the Massachusetts colony in the legal establishment of what is known as the free public school. While this is true, we must infer from our knowledge of the reasons in the minds of the colonists for a separation from the Anglican Church, for their removal to Holland, for their leaving Holland for a home in the wilderness of a new world, for their forming a civil compact at the very beginning of their history as a political body, an instrument enunciating the fundamental principles that have since become the basis of our free government—from a knowledge of these reasons and from our knowledge of the character of the men who signed their names to the compact, we may safely infer that the education of the youth would not be neglected. They did at first voluntarily what they were required to do after 1667 under the authority of law.

In their wills they frequently made special provision for the support of public worship and for the education of the young. It is from these wills that we learn more fully than from any other source the true views of the colonists. In these documents reference is often made to the object of their coming to this country, to their religious belief, and to their desire to dispose of their property for the glory of God and for the general good of the colony, not forgetting the education of the children.

The leaders in the Plymouth colony were strong men, not wanting in literary culture. John Carver, the first governor of the colony, was a deacon of the church in Leyden, an agent and leader in all its transactions from the first to the day of his death. The church reposed entire confidence in his intelligence and executive ability, as shown in the personal letter from Mr. Robinson, addressed to him, bidding him farewell on his departure from Leyden. Although nothing is known of Governor Carver previous to his appointment in 1617 as one of the agents of the church, we may infer that he had acquired an education in some way which prepared him to fill well the place of a leader in one of the most important events of the seventeenth century.

William Bradford was the second governor of the colony. He held the office by annual election from 1621 to 1657, with the exception of five years. He was not only a distinguished political leader, but from his letters and manuscripts we know that he must have possessed more than ordinary literary attainments. Cotton Mather says that the Dutch language was almost as vernacular to Bradford as the English; the French language he could also manage; the Latin and the Greek he had mastered; but the Hebrew he most of all studied, because, he said, "he would see with his own eyes the ancient oracles of God in their native beauty."

Winslow, the third governor of the colony, was an important member of Mr. Robinson's church, a passenger in the "Mayflower," and an author of considerable repute.

Elder Brewster, called the chief of the Pilgrims and the father of New England, obtained a preparatory education, which admitted him to the university at Cambridge, where he remained long enough to take his first degree. This means that he had a good knowledge of the Greek language, and such an acquaintance with the Latin as to enable him not only to read and write it with facility, but to speak it readily, and corresponding to these attainments must have been his progress in other required branches of knowledge. During the last years of his stay in Holland he made out some rules after the Latin manner for teaching the English language, by the use of which the German boys, who resorted to him in considerable numbers, were greatly aided in their study of that language. A thorough knowledge of the Latin was especially necessary to fill the station he was to occupy. The conversations and epistolary correspondence among the learned of this period were, to a considerable extent, in Latin. The important works in literature and science were written in this language. It was also the language of the courts and of the universities.

Elder Brewster was a statesman, as well as a scholar and theologian. The civil compact, that "germ of American constitutions," was doubtless the product of his mind. He was the ruling elder of the church, or he might have been the first governor of the colony. The early ministers were men of letters, and they were teachers. The Pilgrim church chose no other ministers than those able to teach and to become the guardians of the educational interests of the people. No families in the parishes could fail to educate their children without receiving a timely admonition from the lips of the minister.

Miles Standish, the distinguished warrior of the colony, was the military teacher. According to the inventory of his property, he had, with his other possessions, a library of twenty volumes, among which were three Bibles, a law book, and a copy of Cesar's Commentaries, a good library for a military teacher to possess. He had also one fowling-piece, three muskets—a number just equal to the number of Bibles—four carbines, two small guns, one sword, one cutlass and three belts. With these means of instruction and with a large experience as a soldier, he must have been well prepared to teach the theory and art of war to those who were liable at a moment's warning to be called to a practical application of their knowledge and skill, as well as of their courage.

In writing the history of education in Massachusetts, it seems necessary to refer briefly to the ideas and opportunities of those who laid the foundations of our educational institutions, that we may give an appreciative and intelligent account of the institutions themselves, and of what they would be likely to accomplish for a people struggling to be free.

The towns of the colony were civil communities, organized for self-government in all matters relating to their own local affairs.

At an early day the General Court parted with a very considerable portion of sovereignty to the several plantations, together with the fee of the land within the lines of the same, thereby calling into existence what has already been regarded as one of the chief elements of our political civilization—"the towns."

John Adams declared that to the towns, in a great degree, was to be attributed the preparation of our people to engage in and carry through the conflict of the Revolution. He called them the nurseries of freedom, and of schools of universal education in popular rights, and he said that no country can take the true start, or secure valuable progress in political reform without, them; that there is no race so degraded as not to be redeemed to a capacity of self-government if trained by such

an institution to the exercise of control over affairs, by local communities in distinct neighborhoods.

Previous to 1663 the General Court had left the education of the children in the Plymouth Colony in the care of the towns, and then it simply required the towns to exercise care enough to make education within their limits universal and free.

At that time nearly every incorporated town had a settled minister and an appointed elder of the church, whose duties included that of attending to the instruction of the young in reading, writing and arithmetic. The ministers and elders were educated men, and could fit the boys, who were willing to study, to enter the University, after that institution was established. Mr. Josiah Cotton was born in Plymouth in 1679. He says that he was fitted for college by Mr. Wiswall, minister at Duxbury, and by Mr. Adams, then of Taunton. The Plymouth records show that many others, either in private schools or by private tuition, were fitted for college previous to 1663. At this date, 1663, we find in the records the first notice relating to public instruction in the Plymouth colony, as follows:

"It is proposed by the Court unto the several townships in this jurisdiction as a thing they ought to take into their serious consideration, that some course may be taken that in every town there may be a school-master set up to train up children to read and write."

Previous to 1663 we find no evidence of a public school in Plymouth colony. Forty-two years had passed since the landing of the Pilgrims at Plymouth, and a generation born in the country had grown up and become active citizens of a self-governed community. The country was still a wilderness, inhabited by tribes, sometimes hostile to the emigrants, who, few in number, were scattered over the territory they were attempting to occupy. Under such conditions the establishment of public schools was well nigh impossible. But from the character of the people as they presented themselves at the close of the first half century of their colonial life, and from the historical evidence we have, it is certain that their children must have received a good elementary education from more private sources.

Bradford in 1624 speaks of the school as about to supersede family teaching. In 1636 a Plymouth lad was bound to Mrs. Fuller with the condition that she should keep him at school for two years. In 1639 one of the leading men at Taunton was Mr. Townsend Bishop, schoolmaster. In 1640 Deacon Paddy and others proposed the establishment of an academy or college at Jones' river, to be under Mr. Chauncey, a future president of Harvard College. In 1644 the Rehoboth pioneers assigned a lot to the schoolmaster. In the first class graduated at Harvard (1642) was Nathaniel Brewster, from Plymouth colony, and he was followed in 1650 by Isaac Fullerton, Jr.*

It seems to be an established fact that the education of the children in common schools was the subject of general interest in the Plymouth colony long before the law added its sanction and authority.

At a General Court of his majesty, holden at New Plymouth in June, 1670, the court, upon due consideration, did freely give and grant all such profits as might or should annually accrue to the colony from time to time, for fishing with nets and seines at Cape Cod for mackerel, bass or herrings, to be improved for and toward a free school in some town of this jurisdiction, for the training up of youth in literature, for the good and benefit of posterity; provided a beginning were made within one year after said grant; and the ordering and managing of said affair was, by the court, committed to the governor and assistants, or any four of them.

* Pilgrim Republic, page 495.

At a court held March 4, 1672, after reciting the act of 1670, and stating that as Plymouth had, within the time allowed, made a beginning, and that the said town in general have given and granted whatsoever profits may in any way arise from or by the improvement of a considerable tract, lying and being at Agawam, Sepecan and places adjacent, for and towards the maintenance and upholding of the said school at Plymouth, and also since several of the town of Plymouth, out of their good affections, have freely given out of their own estate, for the erecting and procuring a convenient school, have not only for the better accommodation of the scholars, but also for the schoolmaster to live and reside in, as God, by his good providence, may please to present, all the premises being considered, in hope that God may please so to smile upon this our day of small things, as to make it a blessing to the rising generation."

"This court, taking themselves much obliged readily and gladly to accept of that trust committed unto them by the aforesaid General Court, do hereby readily and cheerfully accept thereof, and hope, by God's assistance, faithfully and carefully to use their best endeavors (what in them lieth) to encourage and carry on the said well-begun work at New Plymouth, so long as God shall be pleased to afford any competency of means, and convenient numbers of scholars. And to that end do appoint and constitute our approved friend, Mr. Thomas Hinckly, to take upon him the office, care and charge of a steward of the said school."

In July, 1673, the court ordered the treasurer to pay the charge of the free school, from the profits arising by the fishing at the Cape, until such time as the minds of the freemen be known concerning it, which will be returned to the next Court of Election.

At the next court, held June, 1674, the deputies of the several towns reported that the major part of the freemen of the colony were in favor of continuing the grant of all the profits of the fishing at Cape Cod for the maintenance of the school at Plymouth. The court, therefore, confirmed the grant of the aforesaid profits for the support of said school.

Up to this time no action seems to have been taken with reference to the proposition made by the General Court in 1663. But as soon as the distressing war with King Philip and his allies, which fell most heavily upon Massachusetts and Plymouth, had closed its bloody work, the General Court at Plymouth passed the following memorable act, resembling in its spirit and principles the famous order by the Massachusetts Court in 1647:

"At the General Court, held at Plymouth the first of November, 1677.

"Forasmuch as the maintenance of good literature doth much tend to the advancement of the weal and flourishing state of societies and republics, this court doth therefore order, that in whatever township in this government, consisting of fifty families, or upwards, any meet man shall be obtained to teach a grammar school, such township shall allow at least twelve pounds, in current merchantable pay, to be raised by rate on all the inhabitants of such township; and those that have the more immediate benefit thereof, by their children going to school, with what others may voluntarily give to promote so good a work and general good, shall make up the residue necessary to maintain the same, and that the profits arising from the Cape fishing, heretofore ordered to maintain a grammar school in this colony, be distributed to such towns as have such grammar schools, for the maintenance thereof, not exceeding five pounds per annum to any such town, unless the court treasurer, or other appointed to manage that affair, see good cause to add thereunto, to any respective town, not exceeding five pounds more per annum.

"And further, this court orders, that every such town as consists of seventy families or upwards, and hath not a grammar school therein, shall allow and pay unto next town, which hath such grammar school kept among them the sum of five pounds per annum, in current mer-

chantable pay, to be levied on the inhabitants of such towns by rate, and gathered and delivered by the constables of such towns, as by warrant from any magistrate of this jurisdiction, shall be required."

This order was compulsory, and led to the establishment of a public school in nearly every town in the colony. The extracts given are all that appear in the records of the Plymouth court, during the colonial period. The free school fund, derived from the income of the fisheries, seems to have been faithfully applied in aid of the support of public schools.

In 1678 "Five pounds silver money, of the Cape fisheries' rent, was paid to Mrs. Newman, widow of Rev. Noah Newman, of Rehoboth, and five pounds to the Rehoboth schoolmaster."

In 1682, "In reference to the Cape money, the court have ordered twelve pounds thereof to Mr. Ichabod Wiswall's school at Duxbury, and twenty shillings to Mr. Nathaniel Thomas, for his pains and care about it, and the residue nine pounds to rest in the treasurer's hands, until the court see cause to dispose of it." It is an interesting fact to remember in this connection that, while the Cape itself furnished a home for the Pilgrims, it also provided the source from which was derived the first fund for the support of the public instruction of the children.

The term "School-gate money," in use at this period, was an English name for money derived from toll-gate collections. The phrase "mile and a half money" was applied to a school fund derived from the reserve for school purposes of a mile and a half square of the common lands.

The schools of this period were directed to teach reading, writing, ciphering and Latin. The term ciphering was always used in the early courses of study, instead of the term arithmetic, as the teachers were accustomed to dictate problems in numbers to their pupils, and to require them to cipher for the answers. The pupils were not supplied with books on arithmetic, so that their work in that branch of learning consisted wholly of ciphering.

THE COLONY OF MASSACHUSETTS BAY.

The settlement of Massachusetts had its real beginning in 1630. It was in that year that Governor Winthrop and a company of two thousand souls arrived and settled in Boston and vicinity. The Plymouth settlers were Separatists. Those who came under the leadership of Winthrop were Puritans or Non-Conformists. Both parties came to this country for the accomplishment of the same ends, the enjoyment of Christian liberty and the establishment of a Christian commonwealth. No mention was made directly of schools or of education, either in the compact of the "Mayflower," or in the charter confirmed by Charles I., but by these instruments each company was organized into a body politic, authorized to make and execute all laws necessary for the common good.

The Puritan leaders were statesmen as well as ecclesiastics, and they were in earnest to state in which a higher civil as well as religious freedom could be enjoyed, than they had ever experienced in their native land. The clergy from the first, and for many years, exerted a great influence in the political affairs of the colony. But a large proportion of the laity were men of learning and experience, and they acted on terms of equality with the clergy. If the clergy were permitted and requested to give advice in political affairs, so were the magistrates permitted and invited to give their counsels in matters pertaining to ecclesiastical affairs. The men who first settled Massachusetts were friends of human learning, and they made early provision for the education of the children.

In 1636, the colonial legislature appropriated £400 towards the establishment of a school or college. The next General Court was to locate the college and determine the kind of building it should occupy. In 1637, the college, the oldest institution of its kind in the United States, was located at Newtown.

Newtown was selected as the place for the college, from the fact that in May, 1634, when Dudley was elected governor, it was made the seat of government, as was originally intended, and the courts were held there until September, 1638. The name of the town in this year was changed to Cambridge, out of regard to the place where so many of the leading men of the colony had received their education. In this same year, at his death, John Harvard gave to the college one-half of his property, and his entire library. This was considered to be an omen of divine favor, and was the occasion of conferring upon the institution the name of Harvard College.

The establishment of the college in the early history of Massachusetts was a most important event for the educational interests of the commonwealth. The history of education has established the fact that education works from the top downward.

Francis Adams, of England, said "that elementary education flourishes most where the provision for higher education is most ample." If the elementary schools of Germany are the best in the world, it is owing in a great measure to the fact that the higher schools are accessible to all. Superintendent Philbrick, of Boston, in his annual report for 1874, said: "The common school is always feeble and inefficient when high schools, academies and colleges are wanting." Harvard College was for a long period the mainspring of the success of the common schools."

The establishment of the college created a demand for grammar schools, in which the boys might be fitted to enter its classes, and the requirement for membership in the grammar schools required the introduction of the primary and intermediate grades of schools for instruction in the more elementary forms of knowledge. The early grammar schools of Massachusetts were modeled after the old cathedral schools of England, which were classical or middle schools representing secondary instruction. These classical preparatory schools were the nurseries of English scholars, and excited in the minds of those who came to Massachusetts in 1630 a strong desire to establish at first the higher institutions of learning—like those in which they had received their education.

How early the grammar school at Cambridge was established cannot now be determined, but it was there soon after the settlement of the town and the organization of the college. A writer of 1643 says: "By the side of the college is a faire grammar school for the training up of young schollars and fitting of them for academical learning, that still as they are judged ripe they may be received into the college of this school." The relations of the college to the public schools of the colony soon became evident and were appreciated. In 1673, the Rev. Mr. Oakes, the fourth president of the college, delivered the election sermon before the General Court, in which he said, "Think not that the commonwealth of learning may languish and yet our civil and ecclesiastical state be maintained in good plight and condition. The wisdom and foresight and care for future times of our first leaders were in nothing more conspicuous and admirable than in the planting of that nursery; and New England is enjoying the sweet fruit of it. It becomes all our faithful and worthy patriots that tread in their steps to water what they have planted."

The Plymouth colony showed its interest in the higher education and in the prosperity of the university by a recommendation of the General Court, held at Plymouth, July 4, 1672. "We being informed that it is upon the hearts of our neighbors of the Massachusetts colony to support and encourage that nursery of

learning at Harvard College, in Cambridge, in New England, from whence have, through the blessing of God, issued many worthy and useful persons for public service in church and commonwealth, . . . and that the several towns in Massachusetts have been free in their offerings thereunto; we also being, by letters from them, invited to join in so good a work, and that we may have an interest with others in the blessing that the Lord may please from thence to convey unto the country—This Court doth therefore earnestly commend it to the ministers and elders in each town that they, taking such with them as they shall think meet, would particularly and earnestly move and stir up all such in their several towns as are able to contribute unto this worthy work, be it money or other good pay.”

From this recommendation, by the Plymouth Court, two inferences may be made: 1st. That there was, at that time, an enlightened and earnest school spirit in the colony. 2d. That the government considered the ministers and the elders to be the guardians of public instruction in the towns. But if only the leading men in a community of persons are made responsible for the common education of the children some will be neglected. Parents and guardians must be required, as well as exhorted, to exercise a watchful care over those under their control that no one shall be allowed to grow up in ignorance.

The first order relating to education by the General Court, after that concerning Harvard College, was passed June 14, 1642. After revision, in 1658, it appears in the “Body of Liberties and Laws” as follows: “Forasmuch as the good education of children is of singular behoofe (advantage) and benefit to any commonwealth, and whereas many parents and masters are too indulgent and negligent of their duty in that kind, It is ordered that the Selectmen of every town (in the original draft, ‘Ye chosen men appointed for managing the prudential affairs’) in the several precincts and quarters where they dwell, shall have a vigilant eye over their neighbors to see, first, that none of them shall suffer so much Barbarism in any of their families, as not to endeavor to teach by themselves or others, their children and Apprentices, so much learning as may enable them to read perfectly the English tongue, and Knowledge of the Capital Laws, upon penalty of twenty shillings for each neglect therein.”

“Also that all masters of families do once a week (at the least) Catechise their children and servants in the grounds and principles of religion.” . . . And farther, that all parents and masters do breed and bring up their children and apprentices in some honest, lawful calling, labor or employment, either in husbandry or some other trade profitable for themselves and the commonwealth, if they will not or cannot train them up in learning to fit them for higher employments. The idea of introducing the industrial element into the courses of instruction given in the free public schools of Massachusetts seems to have been prominent in the minds of the founders of the system. They considered it to be a fundamental truth, that the youth should be subjected, both at home and at school, to that form of discipline which would best fit them for their places in life.

They would have the boys and girls, who were to labor with their hands, trained in the public schools in some manual or domestic occupation. Those who were to labor with their minds they would have fitted for what they called higher employments.

The early educators formed their courses of instruction with reference to practical results. The children were required to cipher, that they might learn how to reckon. They devoted the time assigned to arithmetic in performing problems, by the application of rules they had committed to memory, the principles of which they did not attempt to understand.

Their geography lessons required them to obtain a verbal knowledge of the facts represented by maps of the different countries, but the learners did not think of transferring their knowledge of the maps to the real phenomena the maps were intended simply to represent.

Exercises in the grammar of the language were dry formalities, which consisted in the repetition of rules that in the minds of the pupils held little or no particular relation to the construction of the language they were to speak and write.

It was reserved for modern times to discover that children are ends unto themselves, that their school-life should be devoted to the acquisition of useful knowledge by a method of study which will strengthen their faculties and train them to good mental and moral habits. This is now known to be the only preparatory training adapted to fit the young for the operations of the practical life they may choose to follow.

Although the early schools were not conducted in accordance with philosophical methods, they accomplished some grand results. They instilled into the minds of the young the spirit of obedience to authority and a reverence for that which is good and true. They trained them to self-reliance and self-control. They inspired them with a desire for knowledge, though they failed to supply some of the conditions necessary to its attainment. The early homes and the early church of the colonists co-operated with the schools in producing intelligent, orderly, patriotic citizens, and there grew up, under such influences, a model republic.

This first law relating to the common instruction of the children required a certain amount of it to be made universal, though not free.

The law of 1642 did not establish free public schools, nor require instruction in definite courses of study by teachers approved by public authority, nor the building of school-houses, but it did make a common education compulsory, and it was an important step towards the organization and special supervision by the state of free public schools to supply the means of a system of popular instruction.

It required the children to be taught, but the parents and masters might determine by whom they were to be taught. It required a sufficient amount of learning to be obtained to enable the learner to read perfectly the English tongue, but it did not specify the subjects of knowledge to be taught, except the capital laws, and the grounds and principles of religion. To be able to read perfectly the English tongue implies an extensive knowledge of words as such, and of ideas that may be expressed by them. So that they who were chosen to manage the prudentials of the precincts, including the education of the children, were authorized to arrange for the use of a comprehensive and practical course of studies. The learning that enables and inclines one to obtain more learning, to provide for his physical wants, and to comprehend the nature of his civil and moral duties, is all suggested and provided for in the simple order of 1642.

The effect of this order upon the towns was marked and immediate. In accordance with the order by the General Court for the townsmen to see to educating the children, the town of Cambridge divided its territory into six parts, and appointed a person for each division to take care of the education of all the families it contained. So with other towns.

An experience of five years under this law prepared the government of the colony for the enactment of the law of 1647, which perfected the law of 1642, and made the Massachusetts system of public schools free, as well as compulsory.

The system thereafter contained elementary schools for teaching the facts of knowledge and for cultivating the acquisitive powers; the grammar, or secondary

schools, for teaching general knowledge and cultivating the reasoning faculties, and the college for teaching the relations of the various sciences to one another, for reducing all knowledge to unity, and for training the mind to exercise itself in all its modes of activity, so as to produce a harmonious development of its powers.

Every adult citizen of the commonwealth is supposed to be familiar with the famous law of 1647, and with its introductory preamble :

PREAMBLE AND LAW.

"It being one chief project of that old deluder, Satan, to keep men from the knowledge of the Scriptures, as in former times by keeping them in an unknown tongue, so in these latter times by persuading from the use of tongues, that so at least the true sense and meaning of the original might be clouded by false gloss of saint-seeming deceivers, that learning may not be buried in the grave of our fathers in the church and the commonwealth, the Lord assisting our endeavors :"

"It is therefore ordered, that every township in this jurisdiction, after the Lord hath increased them to the number of 50 householders, shall then forthwith appoint one in their town to teach all such children as shall resort to him to write and read, whose wages shall be paid, either by the parents or masters of such children, or by the inhabitants in general, by way of supply, as the major part of those that order the prudentials of the town shall appoint : provided those that send their children be not oppressed by paying much more than they can have them taught for in other towns; and it is further ordered that where any town shall increase to the number of 100 families or householders they shall set up a grammar school the master thereof being able to instruct youth so far as they may be fitted for the university ; provided that if any town neglect the performance hereof above one year, that every such town shall pay £5 to the next school till they shall perform this order."

The law of 1647 is the legal foundation of the Massachusetts system of free public schools. An analysis of the law will suggest the fundamental principles upon which the enactment rests :

1st. That education is necessary to good morals and free institutions.

2d. That the state, in the exercise of its sovereign power, has the right and it is its duty to require the towns within its jurisdiction to maintain a sufficient number of schools for the suitable instruction of all the children belonging to the towns.

3d. That towns of a sufficient number of families may be required to maintain secondary schools in which the pupils may be fitted to enter the university or to perform with intelligence the duties of practical life.

4th. That the towns may be required to maintain free public schools, and support them by a general tax.

If we inquire for the origin of these new ideas concerning the necessity and value of universal education made compulsory and free, and for the reasons that Harvard College and the grammar schools were the first to be established, we shall find the answers to these questions in the preamble to the law of 1647.

The Puritans believed that Satan was endeavoring to accomplish his purposes by keeping the Scriptures in an unknown tongue and by persuading the people from the use of tongues so that their original meaning might be obscured or lost.

Many of the early colonists were English scholars, and they were anxious to establish institutions in America such as had furnished them the advantages of a classical education.

"In the early days of the colony the clergy had great influence even in political affairs ; but it was used most frequently only at the request of the civil authorities." Many of them were statesmen as well as theologians, and their learning entitled them to an influence in making the laws of the colony. They proved themselves earnest friends of social order and civil liberty. The learning they desired to keep out of the grave was that of the fathers in the church and in the commonwealth.

In 1654 the following law was passed, and in the digest of 1658 is annexed to the law of 1647 as the third section :

"3d. Forasmuch as it greatly concerns the welfare of this country, that the youth thereof be educated, not only in good, but in sound doctrine,—

"This court doth therefore commend it to the serious consideration and special care of our overseers of the college, and the selectmen in the several towns, not to admit or suffer any such to be continued in the office or place of teaching, educating or instructing youth or children in the college or schools, that have manifested themselves unsound in the faith, or scandalous in their lives and have not given satisfaction according to the rules of Christ."*

In 1671 the fine for neglect by towns of one hundred families and upwards to keep a grammar school was increased from £5 to £10. In 1683 the General Court passed an order requiring every town, consisting of more than five hundred families or householders, to set up and maintain two grammar schools and two writing schools, the masters whereof were to be able to instruct youth as said order directs (referring to the order of 1647). The penalty for the violation of this order was fixed at £20. The writing schools thus provided for, were elementary schools, designed to prepare the youth for the grammar schools or for citizenship. Harvard College was established by an act of the colonial legislature in 1636, and is the oldest college in America.

The Boston Latin school, the oldest grammar school in the land, was founded by a vote of the freemen of the town on the 13th day of April, 1635.

The grammar school, established by an order of the General Court in 1647, was made the head of the system of public schools in Massachusetts colony, and is the prototype of the high school of the present time.

These schools were called grammar schools because they were required for their special work to teach the classical languages, so as to prepare their pupils to enter the university. They were called free schools at the first, not in the sense of furnishing gratuitous instruction, but for the reason that they were open to all without distinction of race, color or caste. The grammar schools and universities of England were exclusive in their relations to those who might attend them. The candidate for admission must belong to a particular church or caste in society. The colonists were opposed to all such restrictions, and they made their earliest educational institutions free from them. By removing these restrictions they made the schools free schools. That is, no child could be excluded from them on account of his personal relations to the social life of the community to which he might belong. They made them public schools by placing them under public control, and requiring them to be supported by a public tax. The marks by which a free public school may be distinguished, then, relate first, to the conditions of admission to its exercises; second, to the authority by which it is controlled; and third, to the source from which it derives its support.

Several of the early towns belonging to the Massachusetts Bay colony, as well as a few outside of New England, lay claim to the distinction of being the first in the world's history to establish a free public school. The evidence sustaining the claim may be of two kinds—the one internal, the other external. The first may make it probable that the honor belongs to some town of either the Plymouth or the Massachusetts colony, and the second will decide to which one of the two it does really belong. If we study the colonial history of New Plymouth and of Massachu-

* Mass. Records, vol. 5, page 414.

setts Bay for the internal evidence in the case, we shall learn that the elements of a new national life were born in the minds of the colonists. The idea of such a life brought them to this country, with a definite purpose to accomplish the enjoyment of religious and civil freedom. Knowing as they did that intelligence and virtue hold the relation of dependence on each other, they would naturally set about at once the establishment of schools of learning in connection with institutions of worship. This would not be true of any community of persons organized for the simple purpose of securing to themselves some merely temporal or selfish advantage.

If we now turn our attention to the history of the facts from which external evidence in the case may be derived, remembering the marks by which a free public school may be distinguished, we may examine the claims of any who may desire to share in the honor of inventing the idea, or of first giving it an external expression. By applying the test we shall find that the free schools established outside of Massachusetts previous to 1647 were private schools in their organization, management and support. "Free schools, so-called, were established in the early ages of the Christian church," but they were church schools founded and supported by the church, or endowed by individuals. The term free public school would not apply to them. Confining our investigations now to Massachusetts we find that neither do the records of the Plymouth colony nor of the towns afford any evidence of a free public school in that colony prior to 1663.

The origin of the free schools of Boston is noted in the early records of the town under the date of April 13, 1635, as follows: "Likewise it is generally agreed upon, that our brother, Philemon Pormont, shall be entreated to become schoolmaster for the teaching and nurturing of children with us." For the support of Mr. Pormont thirty acres of land were assigned to him. In 1636 Daniel Maude was also chosen to the office of free-schoolmaster, and a small subscription, amounting in all to £40, was made toward his maintenance. It is supposed that Pormont continued in the school until 1638, and Maude until 1642. In 1641 the General Court ordered that Deare Island shall be improved for the maintenance of a free school for the town, and such other occasions as the town for the time being shall think meet, the said school being sufficiently provided for.

The first town school in Salem of which we have any record was organized in 1637, but it does not appear to be recognized by the town until 1640.

Charlestown established a grammar school in 1636, but we do not know that the £40 voted for the support of the master were raised by taxation.

A grammar school was set up in the town of Ipswich in 1633, but it was a private institution until 1644.

How early the grammar school at Cambridge was established does not appear, but it seems to have been coeval with the settlement of the town, and to have been the object of great care and attention. It was there in 1643, "A faire grammar school by the side of the College."

It is claimed by those that have made a somewhat exhaustive study of the subject, that to Dorchester should be awarded the honor of being the first in the world's history to establish and maintain a school free to all belonging to the municipality in which it was located, to be controlled by public authority, and supported by a direct tax on the inhabitants, that is, a school now known as a *free public school*.

On the 4th of March, 1634-5, the General Court granted Thompson's Island to the inhabitants of the town of Dorchester, "to enjoy to them, their heirs and successors, which shall inhabit there, forever, on the simple condition that they pay 12 pence yearly as rent to the treasurer for the time being." On the 30th of May,

1639, the town voted to lay a tax of £20 on the proprietors (supposed to include the principal part of the adult male population of the town) of said island for the maintenance of a school in Dorchester. This rent of £20 yearly to be paid to such a schoolmaster as shall undertake to teach English, Latin and other tongues, and also writing. The said schoolmaster to be chosen from time to time by the freemen, and it is left to the discretion of the elders and the freemen for the time being whether maids shall be taught with the boys or not.

In the same year the Rev. Thomas Waterhouse was elected the first teacher of the free public school thus established. He taught the school in the first school-house built by the town.

In March, on the 14th day, 1645, new style, the town adopted rules and orders for the government of the school. First it was ordered that three able and efficient men of the plantation shall be chosen to be wardens or overseers of the school, who shall have charge, oversight and ordering thereof, and of all things concerning the same in such manner as is hereafter expressed, and shall continue in their office for terms of their lives respectively. This rule seems to establish for the first time the office of town school committee, who were to have the supervision of the schools; a duty until that time always performed by the selectmen of the town.

The wardens were authorized to manage the financial affairs of the school; to select the schoolmaster—not to be admitted to the place, however, without the consent of the inhabitants; to keep the school-houses in good repair; to see that the school was supplied with fuel, and lastly, The said wardens shall take care that the schoolmaster faithfully performs his duty in his place as schoolmaster; that he shall labor for the good of his pupils, without unnecessarily absenting himself from the school; that from the beginning of the first month until the end of the seventh, he shall begin to teach at seven o'clock in the morning and dismiss his school at five in the afternoon; for the other five months he shall begin at eight in the morning and end at four in the afternoon, with a recess from eleven until one; that he shall catechize his scholars on the second day of the week to see what they have learned on the Sabbath day preceding, and shall take notice of any misdemeanor or outrage committed by them on the Sabbath day and shall administer such correction as is fit and proper; that he shall teach the poor children committed to his care with the same interest exercised toward the rich; that he shall teach humane learning and good literature, likewise good manners and dutiful behaviour towards all, especially their superiors, whether meeting them in the street or otherwise; that every sixth day of the week at two o'clock in the afternoon he shall catechize his scholars in the principles of the Christian religion in some catechism which the wardens shall provide, or in some other; that as all man's endeavors must be fruitless without God's blessing, therefore it is to be a chief point of the schoolmaster's religious care to commend his school and his labors amongst them unto God by prayer morning and evening; and because the rod of correction is an ordinance of God necessary sometimes to be dispensed unto the children, liable to be abused by severity on the one hand and lenity on the other, it is therefore ordered That the schoolmaster for the time being shall have the power to minister correction, without respect to persons, but complaints may be made, by parents to the master, and if satisfaction is not obtained the case may be referred to the wardens; and because it is difficult to give particular rules that shall reach all cases, the wardens may act of themselves in all cases where the rules fail to direct them. These orders are to be continued till the major part of the town change them."

These rules and orders were adopted by the town of Dorchester March 14, 1645.

They have been revised since that day, as experience and the demands of a progressive age have required, but they have always retained the spirit, and much of the form, of ancient times. It will be observed that in them we find an account of the appointment of the first school committee in the state, and of the adoption of a comprehensive and intelligent system of rules to guide them in the discharge of their duties. This was pioneer work. It furnished a model for other towns, and for the state itself, in organizing a system of public schools, and for other states as well.

Girls were not admitted to the grammar school in Dorchester until 1784. They were not permitted to enter the grammar school in Boston until 1789. Previous to these dates the girls were taught at home by their parents, or in the common schools kept generally by women, and called Dame schools, a name given in England to small elementary schools kept by women and attended by young children. These schools were sometimes established and supported by the towns, and sometimes by private means. They were designed for instruction in reading and writing. One of the earliest books used in the Dame schools was the "New England Primer."

The Primer was originally a small book of prayer. It was afterwards enlarged and used as an elementary reading book of the lowest grade, and also as a means of religious instruction. Henry the VIII. ordered an English form of prayer to be printed, taught, learned and read throughout his dominions. "The New England Primer," though revised and enlarged, still resembled in character and purpose the primer used in England before the colonists came to America.

An edition published in Boston in 1777, was entitled

"THE
NEW ENGLAND PRIMER.
IMPROVED
FOR THE MORE EASY ATTAINING THE TRUE
READING OF ENGLISH,
To which is added
THE ASSEMBLY OF DIVINES, and
MR. COTTON'S CATECHISM."

There was another book used as an introduction to the primer, and called the Horn Book. This book consisted of a single leaf on which was printed at the beginning of the first line the form of a cross, to show that the end of training is piety. After the cross there followed the letters of the alphabet, the small letters and the capitals, the vowels, syllables of two letters, and the words: "In the name of the Father, and of the Son, and of the Holy Ghost—*Amen.*" Closing with the Lord's Prayer.

This leaf, which was the first page of one form of the primer, was laid upon a thin piece of oak and covered with a transparent sheet of horn, secured by eight tacks driven through the border.

One writer says that the New England primer has done more to form the New England character than any other book, except the Bible.

After learning the A B C, the children were put upon syllables, made of a combination of two letters, then upon words of one syllable, followed by words gradually increasing in length, until they contained six syllables.

The children were required to learn the alphabet for their first lessons in school, and the lessons were taught in such a way that Pestalozzi was accustomed to call

them the "first torment of the young learner." The pupil was required to name them in all orders, day after day, until he could name any letter in the list at which the teacher might chance to point. To assist the child in remembering the names of the letters after learning them, the edition of the primer published in 1770 (printed) an illustrated alphabet. For example, against the letter "A" was placed a picture of the tree on which was growing the forbidden fruit. A serpent was coiled about the trunk of the tree, directing his attention to Eve, who, having taken an apple, was presenting it to Adam. Against this objective illustration was written the couplet,

"In Adam's fall
We sinned all."

After this manner, the whole alphabet was illustrated from "A" to "Z," the latter of which was associated with a picture of Zaccheus in a tree, against which was written—with an emphasis on the word, Zaccheus—the lines,

"Zaccheus, he
Did climb a tree
Our Lord to see."

The "Horn-book" and the "New England Primer" were used in the schools of the colonies until the close of the eighteenth century. Admission to the grammar schools required the pupil to pass an examination in the primer. The early school-books used in the schools of the colonists were the same with those used in England at the same time. Locke says that the method of schools in England in teaching reading has been to adhere to the ordinary road of the "Hornbook Primer," "Psalter," "Testament" and "Bible." Another book early imported was the "Schoolmaster," printed in London in 1624, and used as a reading-book.

A satisfactory examination in these books admitted the young learner to the grammar-school, where he was introduced at once to the study of the Latin tongue and to the Greek, so far as to become familiar with the forms of the various parts of speech belonging to that language. The early books used for the Latin were John Brinsley's "Accidence," issued in 1611; "Directions for young Latinists," printed in London in 1659; and "The Accidence," an American book by Ezekiel Cheever, published in 1650. This book was a very popular work, and for more than a century was the hand-book of the Latin scholars of New England. An edition of this renowned book was printed in 1838, and approved by the most distinguished scholars, who recommended its restoration to use in the preparatory schools. The study of Cheever's "Accidence," prepared the way for Lilly's celebrated "Latin Grammar," published in 1513, the joint product of four of the most distinguished scholars of that age. The contents of these Latin grammars were to be committed to memory before the Latin language as a literature was made the direct object of study. The Latin as a language was pursued by reading the "Colloquies of Corderius," a celebrated French schoolmaster of the sixteenth century, a Protestant, and the author of one of the most noted school-books of his time; a brief history of Rome by Eutropius, a Latin historian of the fourth century and the author of a history extensively used even in modern times on account of the purity, simplicity and clearness of its style; the "Metamorphoses" of Ovid; the "Georgics" and "Æneid" of Virgil; the Commentaries of Cesar; and the Orations of Cicero. No better course of Latin reading could have been selected. The study of a Greek grammar prepared the student to read the Greek Testament and Homer's "Iliad."

After graduating from the Latin school or from any grammar-school, the boys who desired it were admitted to the university, if they could read Tully or such-like classical Latin author extempore, and could make and speak true Latin in verse and prose, *Suo (ut aiunt) Marte*, and decline perfectly the paradigms of nouns and verbs in the Greek tongue; nor could they claim admission before such qualifications—requirements that would now condition every candidate for admission to any university or college in the country.

Among the earliest arithmetics was a work published by James Hodden, of which a twenty-eighth edition was printed in London in 1719. Arithmetic was taught by dictation rather than by books in the hands of the scholars. Slates were not used in the schools before the Revolution, and black-boards were almost unknown in our school-rooms sixty years ago. Not much attention was given during colonial days to the study of English grammar, nor geography, nor history. Dilworth's spelling-book and elements of English grammar was not published until 1740, and Webster's famous speller was first printed in 1783, and Morse did not issue his first small book on geography until 1784.

At this period books of all kinds were scarce in the colonies, and nearly all that did exist were of a religious character.

Printing was introduced into Massachusetts in 1639, yet in 1692 but few printing-presses were to be found, and not a newspaper was issued until nearly the beginning of the eighteenth century. The first regular* paper was the *Boston News-Letter*, issued 1704; the second the *Boston Gazette*, printed in 1719, and the third the *New England Courant*, in 1721.

Reference has now been made to the early movements by the Pilgrims and Puritans in the establishment of a system of public instruction, by means of which people were to be prepared to perform their civil and religious duties as intelligent citizens and practical Christians.

To understand fully the spirit of the system as well as its form, we must inquire for the ends the early colonists desired to accomplish in coming to a new country. Every movement they made seems to have had for its object the cultivation of learning and piety, and of learning with reference to its relation to piety.

The author of "New England's First Fruits," written in 1642, says: "After God had carried us safe to New England, and we had builded our houses, provided necessities for our livelihood, reared convenient places for God's worship, and settled the civil government, one of the next things we longed for and looked after was to advance learning, and perpetuate it to posterity, dreading to leave an illiterate ministry to the churches when our present ministry shall lie in the dust."

This longing established Harvard College by enlisting aid of the government and the sympathy of all the people. The second rule of the college, published to the scholars for the "perpetual preservation of their welfare and government," shows that the authorities appointed to manage the institution were imbued with the same spirit as were the founders. Rule second required every student of the college "to consider the main end of his life and studies, to know God and Jesus Christ, which is eternal life."

Mr. Guizot, minister of public instruction in France, speaking of national systems of education, says the only countries and times in which public education

* The earliest newspaper printed on the American continent was "Publick Occurrences Both Foreign and Domestick," printed in Boston, Sept. 25th, 1690. One number only was issued, as it was quickly suppressed by the colonial authorities.

has really prospered, have been those where the church or the state, or both in conjunction, have considered its advancement their business and duty.

PROVINCIAL PERIOD.—A new charter was granted by William and Mary in 1691, under which a new government was organized in 1692, uniting the colonies of New Plymouth and Massachusetts Bay into one province called the province of Massachusetts Bay. At this time the Plymouth colony was divided into three counties, Plymouth, Bristol and Barnstable, containing seventeen towns and a population of seven thousand persons. Seventy-two years of industrious and virtuous life, made intelligent by the common school and the institutions of religion, had given the descendants of the Pilgrims a good degree of material prosperity and the power of that self-control which is the only basis of a republican government.

The Massachusetts colony, at the end of sixty-two years after the settlement of Boston, was divided into four counties—Suffolk, Essex, Middlesex and Hampshire, containing fifty-five towns and a population of forty thousand persons. Boston, the largest town in New England, containing one thousand houses and seven thousand inhabitants, was the capital.

Harvard College, since its establishment, in 1636, had done a good work in educating ministers and public school teachers, and, governed by the law of 1647, the colony was well provided with free public schools.

"The provincial history of Massachusetts is a continuation of its colonial history. Puritanism was still in the ascendant, and Puritan principles were as vital as ever." The first work of the province was to re-enact the principal colonial laws, though in a form to suit the progress of the times. Among the earlier acts was one for the settlement and support of ministers and schoolmasters. The third section of this act relates to schoolmasters, and provides that every town within the province, having the number of fifty householders or upwards, shall constantly support a schoolmaster to teach children and youth to read and write; that every town of one hundred families shall set up a grammar school, and shall provide some discreet person of good conversation, well instructed in the tongues, to keep such school. Every such schoolmaster to be suitably encouraged and paid by the inhabitants.

If any town, "qualified as before expressed," failed to comply with the law for one year, it incurred the penalty of ten pounds, which was to be expended for the support of such other school in the same county where there be most need.

In 1701, an act was passed in addition to the act of 1692. After reciting the provisions of that act, and declaring that the observance of them is shamefully neglected by divers towns, and the penalty thereof not required, tending directly to the nourishment of ignorance and irreligion; for the redress of the same, the penalty of ten pounds shall henceforth be twenty pounds per annum. The following provisions were added:

"That every grammar schoolmaster must be approved by the minister of the town and the ministers of the two next adjacent towns, or any two of them, by certificates under their hands. That no minister of any town shall be deemed, held or accepted to be schoolmaster of such town within the intent of the law."

It was found, by trial, that many towns required by law to support a grammar school, chose rather to pay the fine or penalty imposed upon them for neglect, than to furnish the support; therefore, in 1718, an act for the support of schools and schoolmasters was passed, increasing the penalty for the non-observance of such acts to thirty pounds, on every town containing two hundred families, and pro rata in case the town contains two hundred and fifty or three hundred families. In some cases the law relating to grammar schools was evaded by the employment of the

minister of the parish to take the place of an authorized master, giving his whole time to teaching a legally organized school. The act of 1718 corrected that evil.

The passage of these additional acts implies that the people, in some of the towns, were losing their interest in the public schools, although the government was still watchful over the welfare of these institutions, and did what it could, through the authority and educating power of the law, to prevent neglect. Many causes contributed to this altered relation of the people to their public schools. With the Puritans religion was the basis of civil as well as of ecclesiastical government, and their religious principles constituted the basis of all their legislation. Their theories led them to deny the freedom of the body politic to all except members of the church; the denial led to dissensions, and the dissensions had a tendency to take off the attention of the people from a great public interest that had always flourished most when the public mind is free from all controversies that corrupt the judgment and embitter the feeling. In July, 1656, the Quakers appeared in Massachusetts. The next General Court turned its attention to them, and imposed a penalty of one hundred pounds upon the master of any ship bringing Quakers within its jurisdiction. Then followed a violent and disastrous persecution that continued, in some of its forms, for more than twenty years.

In 1675, King Philip's War, planned for the annihilation of the colonists, began its terrible work, and ended only after having exhausted all its resources in the desperate attempt to accomplish its purpose. Next came the witchcraft delusion, filling the whole community with terror, suffering, and sorrow. Thus we find in the horror of heresy, the terror of war, the delusions of superstition, and in the anxious uncertainties arising from expectant changes in the civil government of the colonies, the reasons for a temporary decline in the early interest manifested in the free public schools.

In 1768 an act was passed which authorized the inhabitants of any precinct at their annual meeting, legally warned, to raise money for building, furnishing and repairing school-houses, and for the support of schools and schoolmasters.

The preamble to this act says, "Whereas, it may happen that when towns and districts consist of several precincts, some of such precincts may be disposed to expend more for the instruction of children and youth . . . than they are by law held to do, Be it therefore enacted," etc.

Mr. Secretary Mann says that the term "District, used in this preamble, was the legal designation of an incorporated community, precisely similar to a town, in respect to *territory*, rights, duties, privileges and powers, except the right of being represented in the General Court." "The term precinct was used to denote a settlement in a township remote from the centre, and for that reason authorized by General Court to select a minister and support him by a general tax. A precinct was a parish. The act of 1768 is supposed to contain the hint that led to the unfortunate legislation in the constitutional period of our history relating to the powers and duties of school districts."

It will be observed that the school legislation of the second or provincial period does not show a great advance in educational ideas over those of the colonial period. The new laws enacted relate to penalties imposed on the towns for neglect to maintain grammar schools, to the qualifications required of the grammar school masters, and to granting authority to the precincts to raise money for building, finishing or repairing school-houses or for defraying any other charges for the support of schools and schoolmasters.

The history of the times shows that the apparent decline of interest in the pub-

lic schools during the provincial period was due to the civil and political excitements of that period and to the destructive wars carried on with the French and Indians. The law relating to precincts was passed to provide schools for the children living in the sparsely-settled towns, at this time scattered over nearly the entire territory of the commonwealth, and to secure a better attendance in all the schools. But this division of the territory of the towns into districts, and the establishment of schools in every district multiplied the number, while it reduced their size, and consequently their means of support, and their efficiency. In the country towns, especially, cheap teachers were often employed. The summer terms of the school year were taught by women, and the winter terms by men. The frequent change of teachers rendered impossible educational progress towards improved courses of study, or more natural methods of teaching.

The common schools were ungraded. The infant children, trying to master the letters of the alphabet from the New England primer, or from Dilworth's spelling-book, and the grown-up youth ciphering out the problems in numbers dictated by the master from his manuscript, or from Pike's arithmetic, were pursuing their work together in the same schools.

The exercises of the common schools were reading, ciphering, (by those over eleven years of age), writing and oral spelling. There was the same round in both the forenoon and afternoon sessions.

The boys in the grammar schools were required to study Latin and the Greek forms, as well as to read, write and cipher. The work in numbers at this time is called ciphering, for the reason that the children did nothing in numbers but perform problems dictated by the teacher.

The provincial period of our history, extending from 1692 to the close of the Revolution, was filled with events that occupied the minds of the people to the partial exclusion of their original attention to the interests of popular education. But notwithstanding the excitements of the period, and the dispersion of the people over parts of the commonwealth remote from the centre, the people were not faithless to their cherished institutions. The efficiency of the schools is not to be determined altogether by the external conditions that affect their establishment and support, but rather by the results they produce.

The history of the separation of the colonies from Great Britain shows that the descendants of the Puritans and of the Pilgrims, the products of their religious and educational institutions, were more jealous of their rights than the people of any other part of the country. The idea of independence was familiar to their minds. Their love of liberty had grown strong through their training to understand its principles.

These mental states were accompanied with a determined effort to secure what they conscientiously believed to be due to them, by inheritance. For these reasons the wrath of the British ministry was aimed primarily and chiefly, at Massachusetts, where was inaugurated the American Revolution and its struggles for liberty.

THE CONSTITUTIONAL PERIOD.—Soon after his inauguration, April 30, 1789, as President of the United States, Washington visited the place where he first took command of the army of the Revolution. In his reply to the address presented to him by Governor Hancock, he said: "Your love of liberty, your respect for the laws, your habits of industry, and your practice of the moral and religious obligations are the strongest claims to national and individual happiness, and they will, I trust, be firmly and lastingly established."

This reply referred to a people who had been trained in an educational institu-

tion of their own invention—the free public school—through the colonial and provincial periods of their political existence.

Massachusetts adopted her state Constitution in 1780, and the Federal Constitution in 1788. She was then a sovereign state, as well as a member of the Federal Union. Chapter 5, Section 2, of the state Constitution, provided for the

ENCOURAGEMENT OF LITERATURE.

"Wisdom and knowledge, as well as virtue, diffused generally, among the body of the people, being necessary for the preservation of their rights and liberties; and as these depend on spreading the opportunities and advantages of education in the various parts of the country, and among the different orders of the people, it shall be the duty of legislators and magistrates, in all future periods of this Commonwealth, to cherish the interests of literature and the sciences, and all seminaries of them; especially the University at Cambridge, public schools and grammar schools in the towns; to encourage private societies and public institutions, rewards and immunities, for the promotion of agriculture, arts, sciences, commerce, trades, manufacturers, and a natural history of the country; to countenance and inculcate the principles of humanity and general benevolence, public and private charity, industry and frugality, honesty and punctuality in their dealings; sincerity, good humor and all social affections and generous sentiments, among the people."

This section of the state Constitution expresses the public estimation of the value and necessity of popular education and the duty of the state to encourage and support all public institutions of learning that have for their object, the cultivation of thrift, intelligence, virtue and patriotism among the people.

Article 18th, of the amendments to the state Constitution, expresses in clear and unequivocal terms the will of the state, with reference to the application of all moneys raised by taxation for the support of public schools, or which may be appropriated by the state for the support of common schools.

Article XVIII. All moneys raised by taxation in the towns and cities for the support of public schools, and all moneys which may be appropriated by the state for the support of common schools, shall be applied to and expended in no other schools than those which are conducted according to law, under the order and superintendence of the authorities of the town or city in which the money is to be expended; and such moneys shall never be appropriated to any religious sect for the maintenance exclusively of its own schools.

The legislature of the commonwealth, June 25, 1789, proceeded to revise and re-enact the laws relating to the public schools.

The general act passed at this time is entitled an act to provide for the instruction of youth, and for the promotion of good education.

The preamble to the first section of the act is as follows:

"WHEREAS, The Constitution of this Commonwealth hath declared it to be the duty of the General Court to provide for the education of youth, and whereas a general dissemination of knowledge and virtue is necessary to the prosperity of every state, and the very existence of a Commonwealth, Be it enacted," etc.

Section 1 provides that towns of fifty families shall employ a schoolmaster or masters, for a term equivalent to six months each year, to teach reading and writing, arithmetic, orthography and decent behavior. Larger towns must continue their schools for twelve months each year. If the town contained two hundred families or over, it must employ an English schoolmaster for a term of time equivalent to twelve months, and a grammar master, of good morals and scholarship, for a term equivalent to twelve months each year.

The preamble of the second section declared that,

"WHEREAS, by means of the dispersed situation of the inhabitants of the commonwealth, the children and youth cannot be collected in any one place for their instruction, and it has thence become expedient that the towns and districts in the circumstances aforesaid should be divided into separate districts for the purpose aforesaid,

"Be it enacted 2, That the several towns and cities in this commonwealth be and they are hereby authorized, in town meeting to be called for that purpose, to determine and define the limits of school districts within their towns and districts respectively."

It will be observed that the towns were not compelled to divide their territory into districts, nor was any political power delegated to the districts. The districts were to be set off for the purpose of facilitating the attendance of the children at the schools. And to the end that grammar schoolmasters may not be prevented in their endeavor to discharge their trust in the most useful manner,

It was enacted Section 3: That no youth shall be sent to a grammar school unless they shall have learned to read the English language in some other school, or shall have obtained permission from the selectmen to enter the grammar school without such preparation.

Special attention is requested to the provisions of Section 4, of the Act of 1789, by which the moral element is introduced into our system of public instruction, and all teachers of science, as well as religion, are required to use their best endeavors to teach those under their care the principles, and train them up in the practice of every virtue.

Be it further enacted, Section 4: That it shall be, and it hereby is, made the duty of the president, professors and tutors of the university at Cambridge, preceptors and teachers of academies and all other instructors of youth, to take diligent care, and to exert their best endeavors to impress on the minds of children and youth committed to their care and instruction, the principles of piety, justice and a sacred regard to truth, love of their country, humanity and universal benevolence, sobriety, industry and frugality, chastity, moderation and temperance, and those other virtues which are the ornament of human society, and the basis upon which the republican Constitution is structured; and it shall be the duty of such instructors to endeavor to lead those under their care (as their ages and capacities will admit) into a particular understanding of the tendency of the before-mentioned virtues to preserve and perfect a republican Constitution, and to secure the blessings of liberty, as well as to promote their future happiness; and the tendency of the opposite vice to slavery and ruin. And to the end that improper persons may not be employed in the important offices before mentioned,—

"Be it enacted Sect. 5, That no person shall be employed as a schoolmaster unless he shall have received a college education, or unless he can produce a certificate from an educated minister that he is qualified to discharge the duties of a schoolmaster, and that he sustains a good moral character."

With such qualifications he could be employed, provided that no settled minister shall be deemed, held or accepted to be schoolmaster within the intent of this act.

Section 6 relates to the penalties the towns shall incur by neglecting to support a schoolmaster, or masters as required.

Towns of fifty families and less than one hundred, for neglect were made subject to a fine of £10; towns of one hundred families and upward for neglect £20, and every town of one hundred and fifty families for neglect £30, and every town of two hundred families for neglecting to support a grammar master or masters £30.

Section 7 defines the legal process of executing the law relating to penalties, to the use to be made of the money collected, and provides for supervision of the schools, by ministers and selectmen, or such other persons as may be specially selected for that purpose.

Section 8 authorizes all plantations taxed for the support of government, and all parishes and precincts at their annual meeting in March or April to vote and raise such sums of money upon the polls and taxable property of the inhabitants as they shall deem expedient for the support of a schoolmaster, said tax to be assessed and collected in like manner with the public taxes.

The preamble to Section 9 directs attention to a grade of schools, not mentioned before in the present act, but that may be kept in the town, for the instruction of children in the most early stages of life; and that the greatest attention may be given to the early establishing of just principles in the tender minds of such children and carefully instructing them in the first principles of reading,—

“Be it enacted Sect. 9, That no person shall be allowed to be master or mistress of such school, or to keep the same, unless he or she shall obtain a certificate from the selectmen of such town where the same may be kept, or the committee appointed by such town, district or plantation to visit their schools, as well as from a learned minister settled therein, if such there be, that he or she is a person of sober life and conversation, and well qualified to keep such school.”

The teacher was required to teach reading (and writing if contracted for), and to instil into the minds of the children a sense of piety and virtue, and to teach them decent behavior. Every person presuming to teach such school without a certificate was liable to a fine of twenty shillings; one-half for the informer and one-half for the poor of the town where such school happened to be kept.

It was further enacted Section 10, That the teacher of such school must be a citizen of this or of some one of the United States. A violation of this provision for even one month was punished by a fine of £20, one-half to be paid to the prosecutor and one-half to be paid into the treasury of the commonwealth.

As the law of 1789 is a re-enactment of pre-existing statutes, though in some instances in a modified form, as it introduces new features which mark the progress of educational ideas in the minds of the people for the previous one hundred and fifty years, and as it forms the basis of all subsequent school legislation in the commonwealth, it is quite important in tracing the history of our public school system, that the various provisions of this law should be well understood.

1st. The new law provides for dividing the towns into classes and determines the minimum length of the school year for each class, the grade of school to be supported and the course of studies to be taught.

It will be observed that towns of fifty families are now required to maintain schools for a space of time equivalent to one school for six months, instead of for the year, as before; that towns of two hundred families and upward are to support a grammar school instead of towns of one hundred, as formerly, and that the English language and arithmetic are added to the course of common school studies to be taught.

2d. It provides for dividing the territory of the towns into districts, but simply to facilitate attendance upon the schools without granting to the districts any legal rights or imposing upon them any legal duties. The schools were still to be town schools as before.

3d. The schools were now to be graded by requiring candidates for the grammar schools to learn to read the English language in some other school before applying for admission into the grammar school.

4th. The new act imposed, in the most impressive manner, upon all instructors of youth the duty of cultivating the virtues as well as of training the intellect.

5th. It required a high standard of qualification on the part of the teacher as a condition for permission to teach. He must present a certificate from a learned minister or ministers, showing that he is a graduate of some college or university, or that he is qualified to discharge the duties imposed upon a schoolmaster by this act, and that he sustains a good moral character.

6th. It provides for superintendence of the schools by the ministers, selectmen or by a committee appointed for that purpose, which had for its object the oversight of the school attendance, the discipline of the schools and the progress of the scholars in their studies. The spirit of the supervision exercised is shown by the provisions that reasonable notice must be given of the time of visitation.

It recognizes for the first time a grade of schools that may have been established by the towns or by private means rather than by the state, for the most elementary instruction of young children. It emphasizes the importance of elementary instruction in forming the character of the young, and in preparing them for higher courses of study, by requiring all elementary teachers, whether of public or private schools, to obtain a certificate of intellectual accomplishments and moral fitness for their work before they could legally enter upon its performance.

In connection with the provision controlling primary instruction as a distinct grade of public school work, is found the first legal recognition of women as competent to teach in the public schools, although the public school system of Massachusetts was at that time one hundred and fifty years of age.

This state of things must be explained by referring to the prevailing ideas of the times, and to the ideas always uppermost in the minds of the colonists in establishing their early schools.

They thought that the girls should be educated for the duties of domestic life, and that the home, and the Dame schools were the institutions best adapted to furnish opportunities for obtaining such education. From the first they felt the need of an educated ministry, and they established Harvard College. But the boys must be prepared to enter the college and the grammar schools were organized.

The grammar schools were for the boys only. Girls were not admitted to the grammar schools in Dorchester until 1784. In that year such girls as could read the Psalter were allowed to go to the grammar school from the first of June to the first of October of each year. Boston admitted girls to the grammar school for the first time in 1789, and for the next forty years they were permitted to attend only one-half the year, from April to October.

The prevailing sentiment of that day was in accord with that of the German philosopher who said: "The home of man is the world, the world of woman, her home."

At this time the rural schools admitted the boys and girls alike, but the instruction for the girls was limited to lessons in writing, spelling and reading. The boys were permitted to study arithmetic as far as to fractions, but parents objected to the girls wasting their time in acquiring knowledge they would never use.

But Fenelon had written: "That nothing is so much neglected as the education of women, while the duties which they have to perform lie at the foundation of all human society." "It is they who regulate domestic concerns, and educate their children." And another of no less authority had said, "The girls ought to be educated as well as the boys, for their own sake, and for the sake of the human race."

At the close of the American Revolution practical educators, turning their

thoughtful attention to the present condition and future prospects of human society and human welfare began to recognize the fact that the proper education of women is the chief factor of human progress. In 1784 Caleb Bingham opened a private school in Boston for girls, and so great was his success that in 1789, the year of the great reform in the schools of Boston, he was appointed master of one of the three reading schools established at that time in the city, into which girls were admitted on an equality with the boys. This experiment prepared the way for a public school in 1826, called the Girls' High School, for the instruction of girls in the higher departments of science and literature.

The admission of girls to the grammar schools brought the subject of female education distinctly before the public mind, and opposition to its higher forms gradually disappeared, until opportunities for the girls in high schools, and colleges even, have become equal to those enjoyed by the boys in similar institutions.

As long as female education was neglected, the work of public instruction was necessarily performed by men. The early exclusion of the girls from the public schools as pupils accounts for their late recognition by the state as public-school teachers. Horace Mann, in his first annual report, called attention to the apathy of the people towards their common schools.

To show how great was the apathy at that time, 1837, he says that in a flourishing town of three thousand persons, the principal district school ran down and was not kept for two years. There were then forty-three towns, exclusive of Boston, required by law to support a town grammar or high school. These towns contained an aggregate of two-fifths of the population of the state, Boston excluded. Of these forty-three towns only fourteen obeyed the law relating to schools to be kept for the benefit of all the inhabitants of the town. The twenty-nine towns that disregarded the law contained over one-fifth of the inhabitants of the state outside of Boston. The twenty-nine towns expended nearly forty-eight thousand dollars for private instruction, and no more than seventy-four thousand dollars for public instruction. At this time one-sixth of the children of school age in the state were in private schools.

During these apathetic times teaching was neither an occupation nor a profession. Women were employed to teach the summer and men the winter schools, and not many of either sex ever intended to make teaching a life employment. The compensation of such service was too small and too uncertain to attract a supply of the best talent to its performance, or to induce it, when obtained, to continue longer in the work than was necessary for an introduction to something more profitable or more likely to develop into something more desirable.

The poor quality of the common schools and the consequent decline of public interest in them; the refusal of many towns to maintain the town grammar schools, and the needs of the people residing in towns not under legal obligation to maintain such schools, occasioned an increase in the number of private schools for elementary instruction, and the establishment of academies for secondary education.

The term academy, a name first given to a pleasure ground near Athens where Plato taught philosophy, has been applied in modern times to various institutions of science and art, and in a still more restricted sense to private secondary schools designed to prepare young persons for college, or to impart instruction in both the common and higher branches of knowledge to those not intending to pursue a college course of study.

The oldest of the Massachusetts academies was founded at Byfield in the town of Newbury in 1763. It was at first called the Dummer School, from the name of its

founder, William Dummer, who, at his death in 1761, left his property in trust for the establishment of a free grammar school, and for the support of its master. The Dummer School was incorporated in 1782 as Dummer Academy. This institution offered a more extended course of elementary instruction than could then be obtained in the common schools, and a more thorough preparation for college than could be obtained in a majority of the grammar schools. The ability to read the English language in an intelligent manner was the only requirement for admission to the Dummer Academy.

The success of this school attracted the attention of two brothers, Samuel Phillips, of North Andover, Massachusetts, and John Phillips, of Exeter, New Hampshire, who, on the twenty-first day of April, 1778, founded at Andover a similar school called the Phillips' School. On the 4th of October, 1780, the school was incorporated under the title of Phillips Academy, at Andover, and is the oldest incorporated Academy in the commonwealth.

The Constitution prepared by the original donors for the government of the institution, limited the number of pupils to be admitted to thirty, preference being given to those who intended to pursue a classical course of study. The design of the school is clearly expressed in the Constitution.

In order to prevent the smallest perversion of the true intent of this foundation, it is declared that the first and principal object of this institution is the promotion of true piety and virtue; the second, instruction in the English, Latin and Greek languages, together with writing, arithmetic, music, and the art of speaking; the third, practical geometry, logic and geography; and the fourth, such other liberal arts and sciences or languages as opportunity and ability may hereafter admit, and as the trustees shall direct. Two academies were thus successfully established in the eastern part of the state, while the central and western portions were still without schools of a high order. On the 4th of July, 1783, Ebenezer Crafts, an intelligent and patriotic citizen of Sturbridge, Worcester county, presented a petition to the legislature for an act of incorporation of an academy to be located in that county.

The petition was granted, and the Leicester Academy was incorporated in March, 1784. It soon attracted general attention in central Massachusetts, and was the means, in subsequent years, of re-awakening an interest there in popular education.

The results produced by the academies established in eastern and central Massachusetts, created an earnest desire for similar schools in the important towns in the western part of the state.

On the 17th of June, 1793, an academy located at Westfield, Hampden county, was incorporated with the following preamble:

"WHEREAS, The encouragement of literature among the rising generation has ever been considered by the wise and good as an object of the most serious attention, and as the prosperity and happiness of a free people greatly depend upon the advantages arising from a pious and learned education, Therefore, Be it enacted," etc.

Dummer Academy, at Byfield, Phillips, at Andover, Leicester, at Leicester, and Westfield, at Westfield, were pioneer institutions. Coming into existence at the close of the Revolution, at a time when the public schools seemed destined to fail of providing adequate means for the instruction of a free people, attempting to construct their own civil constitutions, and to exercise an intelligent self-control in all their civil relations, they gave an impulse and created a sentiment which resulted in a public recognition of their importance, manifested in the granting of public aid in their support.

The early academies being essentially private schools, did not expect aid from the commonwealth. Their charters gave them a legal existence, and that was all they asked at first of the state. But as the academies incorporated prior to 1797 co-operated generously with the public schools in the common education of the children, a number of them had already received donations of lands in Maine. As other academies petitioned for state aid, the legislature, in 1797, appointed a committee to report a plan for future state appropriations for incorporated academies. The committee made their report February 27, 1797, recommending, among other provisions, that no academy ought to be encouraged by government, unless it have a neighborhood to support it, of at least thirty or forty thousand inhabitants, not already accommodated in any manner, by any other academies, by any college or school answering the purpose of an academy. Secondly, that every such portion of the commonwealth ought to be considered as equally entitled to grants of state lands to these institutions in aid of private donations; and, thirdly, that no state lands ought to be granted to any academy, but in aid of permanent funds, secured by towns and individual donors; therefore, previous to any such grants of state lands, evidence must be produced that such funds are legally secured, at least adequate to erect and repair the necessary buildings, to support the corporation, to procure and preserve such apparatus and books as may be necessary, and to pay a part of the salaries of the preceptors. In accepting this report of the commissioners, some infer that the legislature considered the incorporated academies to be public institutions, and therefore proper objects of public support.

They were indeed open to all who could pay the tuition required, and they offered a higher order of instruction than that supplied by the public schools as conducted at that time. They were distributed over the commonwealth with the design of accommodating all the people. But they were chartered institutions, in charge of corporators. Public authority had no part in appointing or dismissing the teachers; it took no part in preparing courses of study to be pursued, nor in directing the methods of teaching to be employed; it had nothing to do with terms of admission to these schools and graduating from them. In all these important respects the academies were private schools.

The academies accomplished some good ends; 1st, by supplying the means of a more extended and more thorough course of instruction than the public schools, in the time of their depression, could furnish; 2nd, by finally turning the attention of the people to the necessity of improving their public schools, upon which the commonwealth must, after all, rely for a system of popular education; 3rd, by furnishing from their graduates a much better class of teachers than the public schools had hitherto been able to supply.

Prior to 1768, the public schools were supported and controlled by the towns in their municipal capacity. Between this time and 1789, precincts and parishes were allowed to maintain their schools by a tax levied on the parishioners.

As has been said, it was deemed expedient in 1789 to divide the territory of the towns into separate districts, on account of the dispersed situation of the inhabitants.

A law was therefore passed granting authority to the towns to determine and define the limits of school districts. It was the original intent of this law to secure the establishment of a sufficient number of schools for all the inhabitants. The relations of school districts to the town remained as determined by the law of 1789, until February 28, 1800, when an act was passed, entitled "An Act to provide for the instruction of youth and for the promotion of good education."

The first section of this act provided for raising money by the legal voters in the school districts; for erecting and repairing school-houses in their respective districts; for the purchase of all necessary school utensils; for choosing a committee to superintend the building and repairing of school-houses, and for choosing a clerk whose duty it was to make a fair record of all votes passed at any school meeting, and to certify the same when required.

The second and third sections provided for levying and collecting the district tax, and for expending the money raised. The fourth section provides for calling together the freeholders of a district for the transaction of business. The fifth section refers disputed questions relating to the location of school-houses, to the selectmen of the towns,, by whom this power was originally exercised.

The next step taken towards perfecting the school district system, was the passage of an act entitled, "An Act in addition to the several laws now in force, respecting school districts," approved by the Governor, June 13, 1817.

By this act each and every school district was made a body corporate, so far as to bring and maintain any action on any agreement made with any person or persons, for the non-performance thereof, or for any damage done to school-houses, and to be liable to have any action brought against them for the non-performance of any contract by them made. Second, said corporation was authorized to take and hold in fee simple, or otherwise, any estate, real or personal, for the use of the schools.

The powers and duties of school districts were limited at this time to securing attendance of the children upon the schools, to building and repairing school-houses, to protecting school property, and to holding real estate for school purposes.

The act of 1789 was an unfortunate departure from the principle and the requirements of that of 1647. It introduced, in its first form, the school district system; it reduced the annual period of required school instruction from twelve months to six months, for every town containing not more than fifty families, and it relieved all towns, of two hundred families and less, from supporting a grammar school.

An act entitled, "An act for the Promotion of Good Education," was passed by the General Court, and approved by the Governor, February 18, 1824, which still further weakened the system of public instruction, by allowing all towns containing not more than five thousand inhabitants, to substitute a teacher, or teachers, qualified to instruct the children in orthography, reading, writing, arithmetic, English grammar, geography, and good behavior, for a master, or masters, well instructed in the Latin and Greek languages.

The acts of 1789 and 1824 prepared the way for the disappearance of the old grammar schools, for lessening the amount of elementary instruction supported in the smaller towns, and for partially substituting the district for the town system of public schools. These changes were due to dissatisfaction with the public schools, to the popularity among the wealthier classes of the academies and private schools, and to the idea that prevailed to some extent among the people that the support of the public schools was a burden upon them.

An act for "The Instruction of Youth," was approved by the Governor, March 4, 1826, which required, by its first section, each town in the commonwealth to choose, at its annual March or April meeting, a school committee of not less than five persons, to have general charge and superintendence of the public schools in said town; to visit the town schools at least once a quarter, and each district school during the first week of its terms, and on some day during the last two weeks of the same; and to visit all the schools at least once a month, without giving previous notice to the instructors.

The purpose of these visits was to examine the organization and discipline of the schools, and to see that the children were provided with the means of learning.

The committee were required to examine all instructors of their schools, and no instructor was entitled to compensation for services unless he had first obtained from the committee a certificate of his fitness to teach.

Section two provides that all text books to be used in the schools shall be selected by the committee, and purchased by the parents for their children. If the parents failed to supply their children with the authorized books, either through neglect or inability, they were to be supplied at the expense of the town, and the assessors of the town were to add the sum paid for books furnished to children of parents able to pay for them, to the next annual tax of the parents, to be levied and collected as are other public taxes.

Section 5 required the School Committee of Boston and of the towns to report to the Secretary of the Commonwealth on those items that now form the basis of the returns made annually by school committees to the State Board of Education; such as related to cost of public instruction, number of academies and private schools, the cost of instruction in these institutions, number of children of school age not attending school, number of illiterate persons in the state between the ages of fourteen and twenty-one years, the average annual expense for such public school pupil, and the number of school districts.

Section 6 provides uniform returns by requiring the Secretary of the Commonwealth to furnish the towns and cities each with a blank form to be filled out.

The Act of 1826 furnishes some evidence of a revival of interest in the public schools. This interest is shown in the provisions of that Act requiring the towns to elect, each a school committee, whose authority was made supreme over the schools, and whose duties were definitely specified with reference to school supervision.

The new interest is specially shown in the provision requiring returns to be made concerning the relative amount of public and private instruction in the state, the number of children of school age not in school, and concerning the number of persons between the ages of fourteen and twenty-one unable to read and write. An abstract of the returns by school committees, made in pursuance of the Act of 1826, was presented to the legislature January 28, 1827.

At that time there were three hundred and two towns in the State, of which two hundred and fourteen made returns. These were reported as paying annually, \$226,219.90 for public instruction. The estimated amount of private tuition fees was \$192,455.10. The whole number of children attending the public schools was one hundred and seventeen thousand one hundred and eighty six. The whole number of academies and private schools were nine hundred and fifty three, attended by twenty-five thousand and eighty-three pupils. The number of children between seven and sixteen years of age not attending school was two thousand nine hundred and seventy-four. The number of illiterate persons between fourteen and twenty-one years of age, was five hundred and thirty.

These returns, the first ever made by the school committees of the towns, spread before the legislature and the people of the commonwealth, in a definite form, some important facts relating to the condition of her schools. They made it appear that the number of pupils in the academies and private schools was equal to nearly one-fifth of the whole number attending school, and that this one-fifth were in schools that cost nearly five-sixths the amount paid for public instruction.

These partial returns were enough to show that a large per cent. of the school population were not attending the schools, and that the number of illiterate persons was enough to form a dangerous element in a republican state.

Governor Lincoln, in his brief but able inaugural address before the legislature, June 6, 1827, referring to public education, said: "It would be unfaithfulness to duty if in this connection I failed to advert to the adoption of measures for the preparation and better qualification of teachers of youth." The cause of learning languishes both from the paucity and the incompetency of teachers. Speaking of the importance of good public schools and an efficient popular education, he said: "A government founded on the popular will, and resting exclusively for support upon public opinion, can be maintained no longer than the people are enabled to comprehend their rights and are enlightened in the proper manner of their exercise. . . . But profitless and vain were all speculations upon the importance of measures of public utility without the provision of adequate means for their adoption." And he urged upon the legislature the duty of providing the means for improving the public schools.

So much of the message of the Governor as related to public instruction was referred to the committee on education on January 29, 1827. The committee made a report, which commenced by saying "that there are now seven statutes in force relating to free schools and the powers and duties of free school districts," and the report recommends that these statutes, beginning with that passed June 25, 1789, and ending with the act of March 4, 1826, should all be repealed, and their valuable provisions be comprised in one act, with such few corrections and additions as appear to be demanded by the existing wants of the community.

The returns presented to the legislature in January communicated important information concerning the unfavorable condition of the public schools, which led to an inquiry for the causes and for remedies.

Governor Lincoln referred to the want of more and better teachers, and to the necessity of more ample means of instruction, and he spoke of establishing a school fund for that purpose. The committee on education proposed a codification of the school laws, and the introduction of such changes and additions as the times demanded. A thoughtful consideration of the subject led them to conclude that the incorporated academies and seminaries of learning were exerting a highly prejudicial influence on the interests of the public schools, by engrossing the attention and securing the support of the wealthy and more influential citizens, as well as the fostering care of the government; that the character of the instruction in many of the academies was inferior to such as was afforded in some of the common schools, and that the claim set up by the incorporated academies to be considered the children of the state and the proper subjects of the bounty of the state, on account of the act of their incorporation, is a theoretical and practical claim which goes to the dishonor and detriment of the common schools.

The report declares that, with better grace, might the common schools claim aid from the state, for through them alone can learning be generally diffused among the people, and with it the capacity for sustaining our free government. The report was presented in the House of Representatives, January 29, 1827, with an accompanying bill of twenty-one sections in one chapter, consisting of a codification of the school laws enacted since the adoption of the Constitution. Some new provisions were introduced into the revised act.

1. In addition to the district-schools already required to be maintained in every town of not less than fifty families for instruction in orthography, reading, writing, English grammar, geography and good behavior, every city, town and district containing not less than five hundred families was now required to maintain for ten months annually, for the benefit of all the inhabitants thereof, a school in which a

master must be employed competent to give instruction in the studies of the district-school, also in the history of the United States, book-keeping by single-entry, geometry and algebra; and towns of four thousand inhabitants must employ a master competent to teach the above-named branches, also Latin, Greek, general history, rhetoric and logic. From these town-schools grew up our high schools of the present day. 2. School districts were authorized to elect prudential committees, who were to have the care of school-houses and the appointment of teachers. 3. The school committees were forbidden to allow any school-books to be used in the schools that favored any particular religious sect or tenet. The most important addition was the creation of the modern high school.

The term "high" school does not appear in the public statutes prior to 1882, when the town school was thought of as standing at the head of our system of public schools; it was then called the high school, and the town or elementary schools were graded with reference to the high school. Since 1882 the high school has been so designated in the statutes.

The introduction of the high school into our system of public schools was an important step in the progress of popular education in the commonwealth. It has furnished the advantages of scientific instruction free to all the children of the commonwealth; it has dignified our school system by making it complete in itself; it has stimulated all the schools below the high school by influencing them to improve their courses of studies and ways of teaching, and what is of the highest importance in a republican state, it has brought the children of all classes together in their courses of disciplinary instruction.

The law, establishing high schools, met with immediate opposition. Some taxpayers thought that while the elementary schools should be free, the state had no right to impose upon the people the burden of supporting the higher institutions of learning by a general tax. They said: "Let those who enjoy the advantages of the higher education bear the expense." Some towns made opposition to the town schools on the ground that owing to the dispersed condition of their inhabitants, no town could collect its children into one school. Strong opposition was also made by those, who were in favor of academies and private schools that had hitherto received aid from the state, and a college president, whose institution had received large donations from the State once appeared before a legislative committee on education in favor of a repeal of the oppressive law that required the support of high schools by a general tax.

In 1827 Mr. James G. Carter, of Lancaster, presented a memorial to the legislature for aid in establishing a school for the professional instruction of school teachers.

For many years Mr. Carter had been studying the public-school problem. He made himself familiar with the history of school legislation in Massachusetts, and with the defects in her system of public instruction. From 1821, when he began to publish his articles on the free schools of New England, until the establishment of the State Board of Education, in 1837, he did more than any other person by his writings and public addresses to re-awaken an interest in popular education, and to suggest the means of improving the public schools.

In February, 1828, the committee, to whom was referred the memorial of Mr. Carter concerning the establishment of a school for the education of teachers, reported favorably, but the project was defeated in the Senate by a majority of one voting in opposition.

The bill for the literary fund failed to become a law, but the discussion it occa-

sioned prepared the way for the establishment of the Massachusetts school fund a few years later.

The opposition to the law relating to high schools prevailed so far as to procure the passage of an act in 1829, relieving the towns of five hundred families and over, up to those containing four thousand inhabitants, from maintaining a town school, provided the act in no way affected those towns which had already purchased or built houses for the purpose of keeping the town school aforesaid.

Governor Lincoln's message in 1827, and Mr. Carter's memorial, brought the subject of public instruction before the legislature, and created a discussion concerning the necessity of providing adequate means for supporting educational institutions, as well as of passing laws for their establishment.

In February, 1834, the House Committee on Education presented a report, and an accompanying bill in favor of creating a fund to be entitled the "Massachusetts School Fund," consisting of all moneys in the treasury derived from the sale of lands in the state of Maine, and from the claims of the state on the government of the United States for military services, and not otherwise appropriated; together with fifty per centum of all the moneys thereafter to be received from the sale of lands in Maine. It was provided that the fund should not exceed one million of dollars, and that its purpose is the aid and encouragement of the public schools. The fund was to be invested by the state treasurer and receiver-general with the approbation of the Governor and council. The bill became a law on the 31st of March, 1834. Provision was made by an act passed in 1835, for dividing the income of the fund into two parts; one part to be distributed to the towns on the ratio of population, the other on the ratio of the amount of money raised by taxation, and expended for common schools. The first section of this act provides that no apportionment of the income of the fund shall be made to towns which fail to make returns according to law.

Governor Boutwell, in the twenty-fourth annual report of the Board of Education, says that the creation of the school fund was the most important educational measure ever adopted by the government of the commonwealth. It brought the public schools more directly under the care and control of the State. It encouraged and aided the towns to give their schools a more generous support. It secured important school returns that informed the people of the condition of the public schools, and of the urgent need of a thorough reformation in their management. It prepared the way for the establishment of the State Board of Education and the state normal schools.

In 1834 provision was made for establishing Union school districts, in case two or more contiguous school districts in adjoining towns were each too small to sustain a school by itself.

By the school returns of 1835, presented to the legislature in 1836, from four large manufacturing towns containing a population of less than twenty thousand persons, it appeared that eighteen hundred and ninety-five children, between the ages of four and sixteen, did not attend the common schools any part of the year. Of this number almost none were in the private schools.

These facts arrested the attention of the legislature, and resulted in an order instructing the committee on education to consider what provision ought to be made for the better education of children employed in manufacturing establishments.

On March 17, 1836, the committee, Mr. James G. Carter, chairman, made a carefully-prepared report, with an accompanying bill, making it a penal offence for any owner, agent or superintendent to employ any child under fifteen years of age to

labor in any manufacturing establishment, unless such child had attended some public or private day-school for three months of the preceding year.

The idea of providing for the higher education of the people in the public schools prevailed in 1836, and the law relating to the support of high schools, which was partially repealed in 1829, was revived as originally enacted. On the 15th of March, 1830, a meeting of teachers and friends of education was held in Columbian Hall, Boston, to discuss the condition and wants of the schools in the New England states. It was thought that great advantages would arise from future meetings of the same kind, and from the formation of a society of school-teachers. A committee was therefore appointed to draft a constitution and prepare for a future meeting. The meeting was held on the 19th of August in the Representatives' Hall, Boston, and organized by the adoption of a constitution and the choice of Wm. B. Calhoun, president, and Dr. Geo. B. Emerson and Dr. J. W. McKean, of Boston, secretaries. The society was incorporated in 1831, under the title of the American Institute of Instruction.

The friends of education thus organized, directed special attention to the condition of the public schools and to the means best adapted to their improvement.

In January, 1837, the directors of the institute, Geo. B. Emerson, chairman, presented a memorial to the legislature praying for the establishment of one or more seminaries for the special instruction of teachers.

In February of the same year the friends of popular education, at a convention held at Taunton, Bristol county, Cromwell Washburn, president, *Resolved*, 1st, In favor of appropriating the surplus funds received from the general government to the cause of public education. *Resolved*, 2d, In favor of the appointment of a board of control for the supervision of schools, with a secretary, as recommended in the late annual message of the Governor. *Resolved* 3d, In favor of distributing the revenue on the ratio of the population of the towns at the time of distribution.

At a convention held at Halifax, Plymouth county, January 24, 1837, composed of delegates from eighteen towns in the county, and from the towns of Cohasset, Weymouth, and Braintree, Norfolk county, a petition was prepared and submitted to the legislature by Rev. Charles Brooks, of Hingham, asking for the patronage of the legislature in favor of elementary instruction throughout the state. The petitioners declare that the town schools of Massachusetts are not so good as they ought to be, nor as they can be; that they are behind the age both in regard to the topics of study and modes of teaching.

They recommend first, the appointment of a school committee in every town, with full power to superintend and regulate all the schools within the town. Second, a board of education for every county for the purpose of connecting all the schools of the county by a common ambition, and for superintending the Teachers' Seminary established in the county; and third, a secretary of public instruction, whose duty it should be to superintend all the general interests of the school system.

The earnest and able efforts of Mr. Carter continued without discouragement through many years; the eloquent and convincing discourses of Mr. Brooks; the memorials of the American Institute of Instruction and of educational conventions, informed and educated the people, and at last led them to demand of their representatives some legislation that would put the breath of a new life into the public schools.

Governor Everett, in his address to the legislature at the opening of the session in 1837, referring to the commonwealth's share of the surplus revenue, said that no worthier use could be made of a portion of the fund than that of rendering education

better, cheaper, and, consequently, more accessible to the mass of the community. The address suggests the utility of creating a board of commissioners of schools, with authority to appoint a secretary, on a reasonable compensation, to be paid from the school fund.

A foundation for district school libraries was made by an act passed April 12, 1837, authorizing each school district to expend \$30 for such library the first year, and \$10 each succeeding year. Although the districts did not generally avail themselves at once of the authority granted by this act, a beginning was made, that has since resulted in establishing a free public library in nearly every town in the state, with special provisions for supplying the children with books relating to their school studies.

On April 14, 1837, the committee on education, to whom was referred that part of the Governor's address which related to education—also the memorial of the directors of the American Institute of Instruction, and the memorial and petition of the delegates of the Plymouth and Bristol county conventions, reported the following bill:—

"Be it enacted, etc., as follows:—

"SECTION 1. His excellency, the Governor, with the advice and consent of the Council, is hereby authorized to appoint eight persons, who, together with the Governor and Lieutenant-Governor, *ex-officiis*, shall constitute and be denominated 'The Board of Education,' and the persons so appointed shall hold their offices for the term of eight years."

The act was passed on the 20th of April, 1837, and on the 27th of May following the eight members of the Board received their appointment as follows: James G. Carter, Emerson Davis, Edmund Dwight, Horace Mann, Edward Newton, Thomas Robbins, Jared Sparks, George Hill. *Ex-officiis*, Edward Everett, George Hall.

On the 29th of June, 1837, in the council chamber at the State House, Boston, the Board held its first meeting. At this meeting Hon. Horace Mann, then president of the State Senate, was chosen secretary. The act authorizing his appointment defined his duties.

"The secretary shall under the direction of the Board collect information of the condition and efficiency of the schools and other means of popular education, and diffuse as widely as possible throughout the commonwealth, information of the most approved methods of education, that the children, who depend upon the common schools for instruction, may have the best education which these schools can be made to impart."

Mr. Mann entered upon the duties of his office on the 28th of August, 1837, and on January 1, 1838, he submitted to the Board an abstract of the school returns of two hundred and ninety-four of the three hundred and five towns of the state.

His first report was based on the knowledge obtained at educational conventions and on that derived from his own observations; also, on the information contained in the school returns, and on the returns received from a circular sent out by him to every school committee in the state.

Some idea of the earnestness with which he entered upon the duties of his office may be inferred from the fact that between the 28th of August and the 15th of the following November he met in convention the friends of education in every county of the state except Suffolk; that by personal examination, or through reliable information, he obtained definite ideas of the construction and condition of eighteen hundred school-houses, and of the actual state of the public schools in one-half the towns of the commonwealth.

The principal topics considered in the first report were: 1st, Location, construction and condition of school-houses (elaborated in a supplementary report); 2d, The manner in which school committees performed their duties; 3d, Apathy of the people in relation to schools; 4th, Competency of teachers.

Two years before Mr. Mann's report on school-houses was written, the American Institute of Instruction, through its board of censors, said, "That the most prominent defect in the school affairs of the country, that which retards most the progress of public education, is found in the want of spacious and convenient school-houses."

The report says that "the school-houses of the State have a few common characteristics. They are almost universally situated close by the road-side, they are contracted in size and are without proper means of ventilation. In other respects the greatest diversity prevails."

After describing in strong language the defects in existing school-houses and suggesting plans for improvement, the report on the subject closes with a few encouraging words: "Our school-houses, though often injudiciously located, unsightly without and uncomfortable within, yet more than anything else they tend to convert the hope of the philanthropist into faith, and they fill him with a gratification a thousand times nobler and more rational than the sight of all the palaces in the old world."

The law of 1826 required the school committees "to know, by personal examination or otherwise,* the moral and intellectual qualifications of the teachers before they open their schools, to select the text-books to be used, and to visit the schools, that the character of the work done and the results produced may be known."

The report says that the committees in two-thirds of the towns neglect the examination of teachers, that in not more than fifty or sixty of the three hundred and five towns do they make any pretense of visiting the schools for the purpose of exercising the superintendence over their management which the law requires.

A large majority of the teachers were found to be graduates of the same grade of schools they were afterwards elected to teach. Not one of the number had ever had the opportunity of a professional training. They could assign lessons and hear recitations, but they could not teach.

The school committees generally failed to select the text-books to be used, but allowed the children to bring to school whatever books they happened to have on hand. This either increased the number of classes in the school or prevented uniformity in the preparation of lessons by members of the same class.

A general apathy existed towards the common schools. This state of mind was manifested on the one hand by those who did not think the institution of sufficient importance to encourage a generous support, and on the other by those who preferred private to public instruction. This report excited great interest and led to important legislation.

On the 13th of April, 1838, an act was passed requiring the school committees to make a detailed report of the condition of the schools in their towns, to be read in open town meeting, and to be distributed to the inhabitants of the town. The act provided that one copy of the report should be sent to the office of the Board of Education, that the committee should keep a record of their votes and proceedings, and that they should be paid \$1 a day for actual service, together with such compensation as the towns may allow. It was also provided that blank forms of inquiry and school registers should be sent out by the Board of Education, and that the abstract

* "Otherwise" left out in Revised Statutes.

of the school returns should be made up under their direction in the office of the secretary of the Commonwealth.

The act infused new life into the school committees, and greatly improved their service. In the same year the secretary of the Board of Education was required to attend county meetings of teachers, and collect information of the condition of the public schools, of the manner in which school committees fulfilled the duties of their office in regard to the appointment of teachers, attendance of pupils, selection of books and apparatus, and methods of teaching.

It was a self-evident truth in the minds of the friends of popular education that, notwithstanding the acts of the General Court requiring schools to be established, and the efforts of the people in supporting them, the schools after all would be what the teachers made them to be.

A profound conviction of this truth caused the American Institute of Instruction to issue a memorial to the legislature in favor of establishing seminaries for qualifying teachers of common schools; it moved Mr. James G. Carter and Rev. Charles Brooks to make prolonged and earnest efforts for the accomplishment of the same end, it led the Board of Education to ask, in its first report, for normal schools, and Governor Everett, in a message to the legislature, to direct special attention to that part of the report of the Board relating to the professional education of teachers, and the Hon. Edmund Dwight, of Boston, a member of the Board, and of the legislature, to offer \$10,000, to be expended under the direction of the Board, for qualifying teachers, provided the legislature would appropriate an equal amount for the same purpose. This offer was made in March, 1838, and on the 19th of April, of the same year, the legislature accepted the offer.

The Board voted to establish three schools for three years, as an experiment. On July 3, 1839, a school was opened at Lexington, the first normal school on the continent. A second school was established at Barre, September 14, 1839. A third school was located at Bridgewater, and opened September 9, 1840.

The establishment of these normal schools marks the beginning of a new era in the history of public instruction in the commonwealth. They at once introduced the study of the philosophy of education and a method of teaching derived from a knowledge of principles. The normal graduates soon became noted for their knowledge of the subjects that should constitute a course of public-school studies, for their knowledge of the ends to be attained by pursuing the course, and for their improved methods of teaching and of school government.

In 1839 schools were required to be kept for at least six months each year. In the same year an act was passed requiring the employment of female assistants in schools containing more than fifty pupils as the average attendance, unless the town votes to the contrary.

In 1840 the legislature passed a resolve that there be paid annually for five successive years the sum of \$300 to the directors of the American Institute of Instruction. In the same year a bill was introduced into the legislature with a favorable report by a majority of the Committee on Education providing for the abolition of the Board of Education and the normal schools, and for returning to Mr. Dwight the \$10,000 he had generously contributed towards their establishment. A very able report by a minority of the committee in reply to that of the majority, together with clear and convincing arguments in favor of continuing the Board and the normal schools, prevented by a close vote the passage of the bill, and preserved to the cause of public instruction these important institutions. There was developed at this time in different parts of the commonwealth a bitter opposition to the Board of

Education and to its secretary. The introduction of a system of normal schools, to be managed by the State Board for the purpose of training teachers of the public schools to new methods of teaching, was considered by many to be a dangerous innovation upon the traditional forms of school administration under which the children had hitherto been trained to their habits of thinking and believing. They thought the secretary of the Board was a fanatic on the subject of popular education, and that he was an offensive partisan in his religious sentiments. In this year (1840) the town of Springfield improved the supervision of its schools by appropriating a thousand dollars for the salary of a special superintendent. Mr. S. S. Green, afterwards professor of mathematics in Brown University, was elected by the school committee to fill the office, with the honor of being the first town-school superintendent appointed in the state.

In 1843 the resolve of the previous year, concerning school libraries, was extended to every city and town not divided into school districts.

The opposition to high schools continued, and the law relating to towns of five hundred families was again repealed in 1840 for those towns that raised by taxation and expended annually for the support of district schools twenty-five per cent. more than they had ever before raised for their schools.

As the normal schools had passed the experimental stage, the legislature in 1842 appropriated six thousand dollars as the annual sum to be expended for another three years.

The normal school opened at Lexington in 1839, and was removed to West Newton in 1844. The Barre School was relocated at Westfield the same year. The first normal schools were opened in buildings erected for other purposes, and they soon proved inadequate for the uses required by these schools.

A committee of the friends of education presented in 1845 a memorial to the legislature praying that the sum of five thousand dollars might be placed in the hands of the Board of Education on condition that an equal sum be furnished from private sources to defray the expenses of providing suitable buildings for the normal schools and for purchasing apparatus and libraries therefor.

The legislature passed a resolve appropriating the money asked for, and ordered that the normal schools should thereafter be called State Normal Schools. From this time the normal schools were considered permanent institutions forming a most essential element in the public school system of the commonwealth.

A convention of practical teachers met at Worcester, November 25, 1845, and formed the Massachusetts Teachers' Association. The association was incorporated in 1846. This institution owes its origin to the action of the Essex County Teachers' Association, incorporated in 1837 and supposed to be, at this time, somewhat hostile to the Board of Education, and especially so to the ideas expressed in the seventh annual report of its secretary. The convention failed to pass a resolution approving the State Board of Education, but did pass one expressing the opinion that the Bible, or selections from it, ought to be introduced as a text book into both public and private schools; and another asserting "that all attempts to render the judicious use of the rod odious in the estimation of the public tend to paralyze the free, discretionary action of the teacher, to cramp his authority, and greatly abridge his influence and success."

In the summer of 1845 Hon. Edmund Dwight placed at the disposal of Secretary Mann \$1,000 to be expended for the support of teachers' institutes, to be held as an experiment. The first teachers' institute ever held in the state was organized at Pittsfield in 1845, commencing October 21 and continuing ten days. Three other

experimental institutes were held during the autumn of this year. They were thought to be successful both in the number of teachers in attendance and in the value of instruction communicated. In the following year (1846) the legislature appropriated \$2,500 to defray the expenses of the institutes to be held during the year. They were called traveling normal schools, as they were held in different parts of the state, and as they resembled the normal schools in their ends and methods. The institutes co-operated with the normal schools in illustrating improved methods of teaching and school management, in exciting an interest in the study of the principles upon which rational methods are founded, and in impressing upon the minds of the members true ideas of the importance of the teachers' work and of the duty of making a careful preparation for its faithful performance.

John Quincy Adams, representative in Congress, died on the 23rd of February, 1848, and Mr. Mann was elected his successor. Accordingly in the autumn of 1848, to the great regret of the friends of the public school, he severed his connection with the Board of Education to enter upon the discharge of his political duties.

It may be well to refer briefly to some of the results produced by Mr. Mann during the twelve years of his educational labors.

Mr. Mann prepared his twelfth annual report as his farewell address, in which he reviews his labors in the cause of public instruction, comparing the condition of the public schools as he found them in 1837 with their condition as he left them in 1848.

During the twelve years of his service the towns of the commonwealth had expended \$2,200,000 in improving their school-houses, and they had doubled the annual amount raised for the support of their public schools; three normal schools had been put into successful operation, and a co-operative institution, the teachers' institute, had been established; the school committees were exercising greater care in the selection of teachers, and were providing them with better means of teaching; the teachers were employing improved methods of instruction and a more humane form of school government (nearly one-sixth of the schools in 1848 were controlled without resort to corporal punishment); the average length of the schools had increased fifteen per cent., and the aggregate attendance upon them had been constantly improving; there were 91,000 volumes in the school district libraries, and indifference on the part of the people towards the public schools had been changed to an active interest in their welfare.

During these twelve years Mr. Mann delivered addresses in all parts of the state and country on educational topics; he made a personal examination of a very large number of school-houses and of the schools taught in them; he was always present at the teachers' institutes, and took an active part in conducting their exercises; through his influence the school laws were modified in accordance with the progressive ideas of the times, and were more faithfully executed, and in addition to all this service, he wrote twelve annual reports that constitute a most important addition to the educational literature of the age.

Mr. Mann accomplished a good work also for the cause of education through his personal correspondence with teachers and school officials, all of which he conducted himself without the aid of a clerk, even, and much of the time without a public office in which to do his public work.

In the summer of 1843 Mr. Mann visited the schools of Europe. On his return he published in his Seventh Annual report to the Board of Education, an account of his observations.

This report was the object of a vigorous attack by thirty Boston schoolmasters,

and of a still more vigorous defence by Mr. Mann. After making some general criticisms on the capacities, and on the pedagogical learning of the author of the report, the masters proceed to condemn in strong terms, his views of the condition of the public schools of the commonwealth, and his ideas of the best methods of teaching, and of school government.

Mr. Mann set forth in the report the advantages of the objective method of instruction, of phonetic spelling, and of teaching words before letters. He was emphatic in his opposition to the use of text-books in teaching, and of corporal punishment in governing a school. The unhappy controversy excited by this report is now almost forgotten. At the time of its appearance it was useful in two ways. First, it gave to the masters an occasion for presenting to themselves, and to all others, by their discussion, a knowledge of the fact that they were wanting in the progressive spirit which should animate the minds of those who are actively engaged in public instruction; and, second, it attracted the attention of educators, and led them to study with an intense interest for a knowledge of the principles upon which the methods proposed by Mr. Mann were founded.

In 1848, the law relating to high schools in towns of not less than five-hundred families was again revived, and no after attempt to repeal it has been successful. At the annual meeting of the Board in 1848, Rev. Barnas Sears, of Andover, was chosen its second secretary. He entered at once upon the discharge of the duties of his office. On the 13th of December of that year, he made his first Annual Report. He was instructed by the Board to occupy less time in the preparation of written documents, and more in personal work among the schools themselves, for the people at large do not read what is published on the subject of Education, and if they do read, they are not always influenced, by their reading, to act. The secretary, according to directions, turned his attention to the schools, making observations on the regularity of attendance; on the number of pupils and classes in charge of same teacher; on the variety and character of the studies introduced, and on the order of their arrangement. He observed the text books in use and the methods of teaching employed. He made examinations with reference to the capacities, literary attainments, general intelligence, manners, morals and professional ardor of the teachers, their knowledge of the human mind in general, and of the youthful mind in particular, and he turned his special attention to the condition of school-houses. At the close of the year Mr. Sears presented his first annual report.

The teacher's institutes were all organized and conducted by himself. He recommended the abolition of the district system; more care in the selection of teachers, a better selection and arrangement of studies, and a change from the word method of teaching to the objective method.

He was encouraged to find a growing interest in normal schools, in teachers' institutes, and teachers' associations. On the 28th of April, 1849, the secretary was made librarian of the State Library, with authority to appoint an assistant, who was to act also as clerk of the Board of Education. By this arrangement the apartments in the state-house, hitherto assigned to the land agent, were placed under the care and control of the secretary, for the accommodation of his office. The Rev. Samuel C. Jackson, of Andover, was appointed clerk, his services to commence in June of 1849.

The committee on education reported, February 16, 1850, a resolve in favor of authorizing the Board of Education to appoint two agents, whose duties were to be similar to those of the secretary of the Board.

The bill became a law March 6, 1850, and Nathaniel P. Banks and S. S. Green

received the first appointments. Although the appointment of agents of the Board was at first for a temporary service, the duties of the office have been considered to be of sufficient importance, and the agents have in general accomplished such results, that the legislature has, since 1850, made the annual appropriations necessary to continue the service, and to increase the amount of service, as the demands for it have increased. In the same year, 1850, the legislature authorized the Board of Education to receive donations and bequests for educational purposes. The occasion of the passage of this act was the bequest made by Henry Todd, Esq., of Boston, of \$1,000 in aid of the normal schools.

In the same year the legislature took the first step towards the abolition of the school district system by the passage of an act instructing the towns how to dispose of their school-houses, if they abolished the districts. The system, though originally designed for a good end, viz.: to secure the attendance of the children upon the public schools, proved to be the source of many and serious evils. It prevented a town organization of the public schools by establishing a school management not responsible to the towns. It permitted men to be elected to the office of prudential committee, without regard to any special qualification for the performance of its duties, but rather because it was "their turn," or because there was some private end to promote. It gave to the small districts poor school-houses, poorly-equipped, cheap teachers, and, consequently, a low order of instruction. Although the schools were supported from a common fund, the product of general and equal taxation of the property of the town, which entitled all the children to equal privileges, nevertheless, under the district system, these privileges were determined by their numbers in the district where they happened to live; by the wealth, intelligence and spirit of the people and by the conduct of the prudential committee.

The school district system took a strong hold of the people, especially of those living in the small towns. They called the districts miniature democracies, in which the people, in a limited sense, were literally their own rulers. They thought that the exercise of the rights of freemen in the district elections, and in holding district offices, prepared them for the exercise of these rights in a larger way. This mode of reasoning, and the habits formed during the ninety-four years of experience in the use of the system, created a prejudice in its favor in some minds that was almost impossible to remove. But at last the weakness of the system and the mischief it had done attracted public attention, and efforts began to be made for its abolition.

"The Supreme Court declared that the school district is a corporation not only very limited in its powers, but also of precarious existence, as both were entirely dependent on the will of the town; that it has no political functions or rights whatever; that it affords the smallest possible field for the transaction of the people's business, and none at all for the exercise of political rights preparatory to a broader field. For the exercise of such rights we must look to the town. The town is the political unit; all below it is fragmentary, all above it—county, state, nation—are but multiples."

The Board of Education, soon after its organization, presented to the legislature the results of its observations on the relations of the district system to the low condition of the public schools, and urged with great earnestness the repeal of that body of laws by which it was established.

On May 3, 1850, the Governor approved an act concerning "truant children and absentees from school." It was a permissive act, which simply authorized the towns to make all needful provisions concerning habitual truants and children not attending school who were between the ages of six and fifteen years.

The several cities and towns availing themselves of the provisions of the act were required to appoint three or more persons who alone were authorized to execute the judgments of the courts having jurisdiction in the matter. The truants and absentees were liable, at the discretion of the courts, to a fine not exceeding twenty dollars, or to be placed in such institutions of instruction or of reformation as might be provided for the purpose. When the school authorities turned their attention to school attendance, it was found that a large number of children of school age were not in school. Such children were divided into two classes: Those who were voluntarily absent were designated truants, while those who were absent for reasons beyond their own control were called absentees. The fine of twenty dollars was of little consequence, for the truant children could not pay it. The confinement in proper institutions for instruction and discipline was quite impossible, for there were no such institutions in existence. Although the provisions of the first truant law were not generally observed, attention was directed by it to truancy, and since that day, as we shall learn, ample provision has been made for the instruction of all the children of the state, even for those unfortunates who do not appreciate its value.

In 1850 the school committee was authorized to introduce the study of physiology and hygiene, and to require teachers to pass an examination in these branches of knowledge.

In 1851 the act limiting the school fund to one million dollars was repealed by an act allowing it to accumulate until it amounted to one million, five hundred thousand dollars.

In 1853 a step was taken towards abolishing the district system, by an act authorizing the school committees to discontinue the districts at their discretion, unless the inhabitants of the town shall vote as often as once in three years to retain them.

In the sixteenth annual report (1853) to the Board of Education, Dr. Sears presented a strong argument against the continuance of the school district system. The arguments were based on the results of his own observation, and on the returns from a circular sent out to towns which had tried both the town and the district system. The facts thus collected and presented to the legislature secured the passage of an act that gave a slight hint that the objectionable institution might some day be abolished.

In the same year an important act was passed establishing a system of state scholarships, forty-eight in number. This act had for its object the educating and training of a number of young men for the office of principal teacher in the high schools of the commonwealth. After leaving college the scholars who desired to attend a normal school were still further aided by the state for a period of time not exceeding two terms. By combining a liberal with a professional education the state expected to provide its secondary schools with masters thoroughly prepared to teach not only their own schools in accordance with philosophic methods, but to exercise a controlling influence over the teaching in all the schools below their own.

On the 16th of April, 1853, the legislature passed a resolve providing for the establishment of a normal school in the county of Essex. Through the successful efforts of Hon. Charles Upham, at that time mayor of Salem, the Board of Education voted to locate the school in that city. On the 14th of September, 1854, the normal school-house at Salem was dedicated, and the normal school was organized under the direction of Mr. Richard Edwards, its first principal. This school, situated in the midst of the most thickly settled and wealthy portion of the commonwealth, has, since its establishment, done a large and important service for public education in the state.

The demand for teachers trained in the normal schools had now become far greater than the supply. Their improved methods of instruction improved the schools and awakened a deep public interest in their prosperity, and in the success of the normal schools.

To enable teachers, living remote from the normal schools, to attend them on equal terms with those living in their immediate vicinity, the legislature, in 1853, appropriated \$1,000 to each of the four normal schools, to be distributed annually to such teachers as find it difficult to meet their traveling, added to their other necessary expenses. The aid thus furnished materially increased the attendance upon the normal schools.

In 1854 provision was made for increasing the school fund. The treasurer of the commonwealth was authorized to transfer to the fund such a number of shares held by the state in the Western Railroad Corporation as, at \$100 a share, would increase the school fund to \$1,500,000. In connection with the increase of the fund a new mode was devised for distributing its income.

The towns were to receive one-half the income and, the other half was to be appropriated to meet general educational expenses. No sums of money thereafter were to be drawn from the principal of the fund.

Rev. Barnas Sears, appointed secretary of the Board of Education in September, 1848, resigned the office on the 24th of August, 1855. "The Board of Education, in its annual report for this year, express its regret at the resignation of the secretary, and commend his administration as eminently calculated to conciliate public sentiment in favor of popular education in the commonwealth, to consolidate the system and to bring it into harmony with the wants of the people, and the policy of the legislature." The report says that "during his administration great progress has been made. The appropriations for schools have been increased; important additions have been made to the school fund; school-houses and means of teaching have been improved; the professional character of teachers has been elevated and their influence extended. We are sensible that these changes are in a high degree owing to the labors and wise counsels of the late secretary."

On the 7th of September, 1855, the Hon. George S. Boutwell was appointed the successor of Dr. Sears. Mr. Boutwell obtained his school education by attending the district school during the winter months until he was thirteen years of age, working with his father on the farm during the summer. After that time he improved his leisure hours in study by himself until he was ready, at the age of twenty-one, for admission to the bar. Having served as a member of the state legislature for several years and as Governor of the state for two years, he entered upon the responsible duties of secretary of the Board of Education, with a thorough knowledge of the educational institutions of the commonwealth, and with a deep interest in popular education.

The school committees were required in 1855 to exclude from the public schools every child who had not been duly vaccinated. In the same year, the moral health of the children was provided for by an act entitled, "An Act to secure the reading of some portion of the Bible in the public schools of the commonwealth." A clause in the same act required the school committee to select all other books to be used in the schools.

In 1854, cities were authorized to require, by an ordinance of the city government, the school committee to appoint a superintendent of public schools annually. In 1856, an act in addition to this act, required the school committee of such city to serve without compensation, after the passage of such ordinance, unless the city shall otherwise provide.

Evening schools for persons over fifteen years of age, were authorized by an act of the legislature, passed in 1857. Such schools were introduced into Boston in 1836; into New Bedford in 1848, and into Lowell in 1853. These schools were established for persons, who, though beyond the school age, and unable to attend the day schools, were still desirous of obtaining more knowledge than they had hitherto acquired.

The evening school organized at Warren Street Chapel, Boston, 1836, by Rev. C. F. Warren, is believed to be the first of its kind in this country. The results of the Warren street school were reported to be in the highest degree satisfactory. Other evening schools were established in different parts of the city and country, but prior to 1857 were wholly supported by private beneficence.

The law of 1857 required the evening schools to teach reading, writing, arithmetic, geography, drawing, the history of the United States and good behavior. Owing to the fact that attendance upon these schools is voluntary, it is generally found to be irregular.

From the returns of 1894, it appears that 55 towns were maintaining 285 evening schools, with an enrollment of 32,919 pupils, and an average attendance of 17,420, or 52 per cent. The cost of the evening schools for this year (1894), was \$171,544.57. These schools are popular, and on account of the important ends they are accomplishing, they are cheerfully and generously supported.

On May 10th, of this year (1857), an act was approved repealing that of 1853, providing for the discontinuance of school districts at the discretion of the school committee, unless the town, once in three years, should vote to retain them. At this time the educational authorities were quite unanimous in favor of abolishing the districts, but the people were divided on the subject. Many in the rural portions of the state were violently opposed to the abolition of what they considered to be a time-honored institution.

Since the act requiring the towns to elect town school committees, everything pertaining to school supervision has been committed to their care. An act, passed in 1857, provides that the school committee shall have the general charge and supervision of the schools. It has been decided that this provision confers authority upon the committee to determine how many schools shall be kept, and what shall be the qualifications of candidates for admission to them, to organize the schools, to distribute the pupils among them and to spend more money for the support of schools than the towns or city councils appropriate, if the amount is not sufficient to meet the requirements of the commonwealth.

In the same year, 1857, the laws relating to teachers and courses of studies were amended so as to require for the elementary schools teachers competent to teach orthography, reading, writing, English grammar, geography, arithmetic, algebra, the history of the United States and good behavior; and also physiology and hygiene, if the committee approve. For the lower grade of high school, in addition to the branches named for the elementary schools, the teachers must be competent to teach general history, chemistry, botany, book-keeping, surveying, geometry, natural philosophy, the civil polity of this commonwealth and of the United States, and the Latin language. For the higher grade of high school, in addition to all the branches before mentioned, the teachers must be competent to teach the Greek and the French language, astronomy, geology, rhetoric, logic, intellectual and moral science and political economy.

By a resolve, passed in 1859, the Governor, with the advice and consent of the council, was authorized to appoint three commissioners, empowered to obtain by gift

or purchase, and to equip a good ship for the purposes of the nautical branch of the State Reform School. Provision was to be made for the accommodation of not more than one hundred and fifty boys and for the requisite officers. A small vessel was to be provided to serve as a tender to the school ship for the purpose of exercising the boys at sea. A ship was purchased and named "Massachusetts," to which fifty boys were transferred in July, 1860, from the Westborough school. The government of the nautical branch of the reform school was vested in five trustees; three were appointed by the Governor for three years, and one each by the Boston Board of Trade and the Boston Marine Society. "The trustees had control of the school ship and other vessels belonging to the institution, and they were required to cause the boys under their charge to be instructed in navigation and in the duties of seamen. All boys committed to the reform school who were between fourteen and fifteen years of age were put on board the nautical ship."

In 1859 vocal music, drawing, physiology and hygiene were made regular studies at the option of the school committee. A change in text-books required the unanimous vote of the whole committee, providing that whenever the committee shall consist of a number greater than nine, three-fourths of the members present at a meeting called for the purpose may change the books, and each pupil requiring the substituted book shall receive it at the expense of the town.

In 1859 the school district system was abolished. The act was approved April 6th, and was repealed at the autumn session of the same legislature by which it was enacted.

On the same day of the same year an act was approved imposing a fine, of twice the highest sum ever raised for the support of schools, upon any city or town refusing or neglecting to raise money for the support of such schools as are required by law; and a fine of not less than \$500, nor more than \$1,000, for neglecting to choose a school committee; and a forfeit of ten per cent. of the town's share of the income of the school fund, if the school committee neglected to make the required returns before the last day of April of each year, and the forfeit of the whole of said income, and in addition thereto a fine of not less than \$100, nor more than \$200, if the returns were not sent before the first day of June.

The legislature of 1859 provided that, after the payment of certain appropriations then specifically made, the entire moiety of the sales of the public lands should be added to the school fund. As the state increased the amount of aid provided for the support of schools, it also increased its demands for their improvement. By an act of the same year (1859), committees were required to select teachers, to make contracts with them, and, by personal examination (or otherwise, now omitted), to obtain satisfactory evidence of their good moral character, and of their qualifications to teach and to govern a school.

Massachusetts has ever exercised a generous care over her higher institutions of learning, that the advantages of a liberal education might be within the reach of all her children. To this end, Harvard College, the oldest institution of the kind in the country, received its foundation from the state; and since that period, the General Court has frequently expressed its interest in higher education, by liberal grants from the public treasury for the support and encouragement of the younger colleges in the commonwealth, as well as of the parent institution.

In 1859 the school fund was increased, and aid was granted to the Museum of Comparative Zoölogy, to Tufts, Williams and Amherst Colleges, and to Wesleyan Academy at Wilbraham, on condition that they were to support each three free scholarships, to be under the control of the Board of Education.

Mr. Boutwell resigned the office of secretary of the Board of Education in August, 1863. He was, however, re-elected to remain temporarily in the service, or until his successor could be appointed. He prepared the secretary's report for 1860, which consists of a digest of the school laws, together with an abstract of the school returns for 1860.

The Board expressed its regret at the resignation of its secretary, and its high appreciation of his services during the five years of his administration. It recognized in his discharge of the laborious duties of the office of secretary of the Board, distinguished ability and wisdom. Mr. Boutwell labored earnestly for the abolition of the school district system; for the success of the high schools; for better teaching in the elementary schools; for more adequate support of the normal schools; for advancement in the work done at teachers' institutes, and all with reference to a general improvement in the methods and means of public instruction throughout the state.

The Board elected the Hon. Joseph White, of Williamstown, as the successor of Mr. Boutwell. Mr. White was born at Charlemont, Franklin county, on November 11, 1811. He received his elementary education in the public schools. He entered Williams College in 1832, graduating in 1836 with the first English Oration. After leaving college he taught school for several months, and in March, 1837, he was appointed tutor in Williams College, and resigned the office in August of 1840. He entered upon the practice of law in 1841. In December, 1848, he was appointed agent of the Massachusetts Cotton Mills at Lowell, one of the largest manufacturing corporations in New England. He was elected member of the Massachusetts senate in 1857; appointed bank commissioner in 1858, a trustee of Williams College in 1848, and its treasurer in 1859. He received the appointment of secretary of the Massachusetts State Board of Education in July, 1860, to begin his work in January, 1861.

Mr. White entered upon the discharge of the duties of his responsible office in full sympathy with the free public school. His knowledge of its history in the commonwealth, and his personal experience of its advantages had made him conscious of the value of popular education, and aware of the necessary means to be employed in promoting its true interests. He was able, therefore, to bring to his work that spirit and knowledge which were the sources of his success. He was an eloquent speaker and a vigorous writer. His educational addresses and published reports, sixteen in number, have made a valuable addition to our educational literature.

The school committee were ordered in 1862 to require the daily reading of some portion of the Bible, without written note or oral comment, in all the public schools, but they were not to require any scholar to read from any particular version contrary to the conscientious scruples of parents or guardians, nor were they to permit the use in the school of any sectarian books.

In all Protestant countries the study of the Bible has ever held an important place in the education of the young. After the Reformation children were taught to read, that they might read the Bible and become familiar with the history it has preserved and with the precepts it teaches.

The ordinance of 1647 ordered every township in the Massachusetts colony, containing as many as fifty families, to appoint one to teach children to read and write, that they might not be kept from a knowledge of the Scriptures. In the United States the public schools, as they are common schools, are necessarily non-sectarian, and whether the reading of the Bible shall be continued is at present an unsettled question. The controversy on the subject of admitting religious instruction into the

public schools or excluding it from them has, in the past, been bitter, even to endangering the existence of the system itself. At present a majority of the people believe that the public schools should limit their instruction to those studies the pursuit of which has a tendency to make citizens in the highest and best sense of that term.

In the same year (1862) the industrial element in education was provided for by an act authorizing the school committee to introduce the teaching of agriculture, by lectures or otherwise, in all the public schools in which the school committee deem it expedient. Although the act did not succeed in introducing a general study of agriculture as such into the common schools, it did have an influence in introducing into the high schools and advanced grammar schools more intelligent work in chemistry, botany and mineralogy—subjects containing the elements of the science of agriculture.

In 1863, a resolve was passed requiring the Board of Education to consider the subject of introducing military drill and discipline into the public schools.

They were in their investigations to examine the high school in Brookline and the military organization among its pupils with reference to the results of military exercises on their health, scholarship and general deportment.

In 1865 a law was enacted providing that no town should thereafter receive its annual share of the income of the state school fund unless it had made the returns required by law, and had raised by taxation for the support of schools during the school year a sum of not less than three dollars for every child in town between the ages of five and fifteen years.

The income of the fund distributed among the towns not only aided them in the support of their schools, but it furnished a powerful motive in persuading them to obey the laws establishing the conditions of the distribution.

At this time the required returns were made by all the towns, and they all raised the required three dollars, a majority of them more than twice that sum.

In 1866 the legislature repealed the act of 1853 establishing state scholarships. It was found that less than one-half the scholars selected according to law sustained at the close of the first year the rank required to entitle them to receive state aid. The law proved a failure in supplying teachers for the high schools. The report of the Board of Education for the year 1866 expressed the opinion that the course of instruction in our colleges does not prepare the students to become teachers in the public schools; that the school committees everywhere prefer trained or experienced teachers for the high schools, and that the law of 1853, for the purpose it was enacted, had proved a failure.

In the same year (1866), towns and cities were authorized to provide for children under sixteen years of age, who, by reason of the neglect, crimes, drunkenness, or other vices of parents, or from orphanage, are suffered to grow up in ignorance or under circumstances that expose them to lead idle and dissolute lives.

The trustees of all institutions of learning incorporated, supported or aided by the state, of all reform schools and of all private educational institutions, were required by the law of 1867 to report such statistics concerning pupils, teachers, studies, tuition and general condition of the schools as the Board of Education may prescribe.

In 1869 an act was passed permitting the towns to convey at public expense the children to and from the public schools. The compulsory law of 1862 required every town to maintain a sufficient number of schools for the instruction of all the children who may legally attend school therein.

The territory of the towns had been divided since 1789 into school districts, and

every district was expected to support its own school. Many schools in the country districts had become too small for efficiency in their work, or for economy in their support. The courts had decided that authority was vested in the school committee of a town to determine how many schools it should support, and the act of '69 enabled the school committees to unite their small schools into larger ones, and still maintain in a more efficient and economical way a sufficient number for all the children. The town of Montague, in Franklin county, was among the first to take advantage of the provisions of the law relating to the conveyance of children, by establishing public conveyance to her central high school. The historic town of Concord was the first to make a more general application of the system. The success of the experiment soon led other towns to see the great economy of means and efforts secured by a proper reduction of the number of their schools, and by a concentration of their educational forces. The returns for 1894 show that 199 towns expended in the aggregate \$63,617.68 for the conveyance of their children to and from their central schools.

In 1869 the Board of Education was directed to consider the expediency of making provision by law for giving free instruction to men, women, and children, in industrial and mechanical drawing in all towns having more than five thousand inhabitants, and report a definite plan therefor to the next General Court.

This resolve originated in a petition signed by a number of influential citizens interested in public instruction and in the mechanical and manufacturing industries of the commonwealth.

The board referred the petition to a special committee of its members to make a thorough investigation of the subject, and to report its conclusions to the board.

The committee made its report on the 9th day of March, 1870. It recommended for the consideration of the legislature an enactment requiring elementary and free hand-drawing to be taught in all the public schools, of every grade, in the commonwealth—and which shall further make provision for instruction in industrial and mechanical drawing to all men, women, and children, in all cities and towns having a certain number of inhabitants, in such manner as the Board of Education shall prescribe.

On the 16th of May, 1870, drawing was included among the branches of learning required to be taught in the public schools, and every city or town was permitted, and every city and town having more than ten thousand inhabitants was required to annually make provision for giving free instruction in industrial and mechanical drawing to persons over fifteen years of age, either in day or evening schools, under the direction of the school committee.

In April, of this year, the legislature granted authority to any two towns to unite in supporting a union school superintendent. At this time many of the cities and large towns had availed themselves of the provisions of law by requiring their school committees to elect superintendents and commit to them the general care and supervision of the schools.

The schools in these towns were known to be the best in the state. Inability on the part of the smaller towns to support such an agency was an obstacle in the way of its general introduction; hence the law of 1870, under which five districts were organized, and continued in successful operation until the advantages of special supervision became so apparent that each of the united towns provided a superintendent for itself.

The act of 1870 required drawing to be taught in the public schools, but it was found on inquiry that there were very few, if any, suitable teachers of the art to be

found in the commonwealth. Provision must therefore be made for preparing teachers to supply the demand, created by the act. The city of Boston entered at once upon this work. The sub-committee on drawing in the city recommended the employment of a suitable teacher from the South Kensington Art School as normal instructor in drawing for the city. The report was accepted, and in 1871 Mr. Walter Smith, a graduate of the celebrated South Kensington School, and at that time art master of the school of Leeds, England, was engaged and placed in charge of the department of drawing in the Boston schools.

In 1872 Mr. Smith was employed by the Board of Education as professional advisor and lecturer on the subject of art education, dividing his time between the state and city. He began his work for the state in July, 1872, by delivering lectures in the large cities and giving addresses and practical illustrations in the normal schools and teachers' institutes.

In his first report to the Board made in 1872 Mr. Smith recommended as a remedy for the principal difficulty in the path of art education in the commonwealth, the establishment of a normal art school.

The Board approved the recommendation of the art master, and the subject was presented to the legislature of 1872, but without immediate results.

The principal legislation of this year relating to public instruction, is comprised in an act authorizing cities and towns to establish industrial schools. The Board advised the establishment of special schools for technical instruction, rather than its introduction into the public schools already organized.

In 1871 the legislature appropriated \$60,000, and the city of Worcester \$15,000 to defray the necessary expenses of erecting a suitable building and furnishing the necessary appurtenances and apparatus for a normal school at Worcester. The school was opened for the admission of pupils Sept. 15, 1874, E. Harlow Russell, principal.

In his inaugural address delivered Jan. 5, 1872, Governor Washburn recommended the abolition of the nautical school established in 1859. The school was considered to be a failure, as the system of instruction and discipline employed on board the school-ship did not tend to the reformation of the boys; besides, a few of them only were willing to go to sea after receiving their education, and a majority of the few "promptly deserted" on the first opportunity. The legislature abolished the school, and authorized the Governor with the consent of the council to sell the school ship at any time after July 1st, 1872.

The normal schools established at Lexington and Barre, had each a Boarding Hall for their students. After the removal of the schools, all students attending, boarded either in private families, or, as seemed to be necessary in some cases, boarded themselves. As the schools increased in numbers, board in families was not easily obtained, and as there were strong objections to self-boarding, a boarding-hall was provided for the Bridgewater School in 1869; another was opened for the Framingham School in 1870, and one for the school at Westfield in 1874. The halls were built and equipped by the state, their management placed in the care of the Board of Education, and all boarding affairs furnished at cost. As a result the number attending the normal schools was greatly increased, and the happiness, health and success of the students were greatly promoted.

In 1873 the state appropriated \$7,500 for the expenses of a normal art school, and assigned for its accommodation the rooms on the third floor of house No. 33, Pemberton Square. The state Board of Education were authorized to organize the school, and to have the supervision of its management. Prof. Walter Smith, state

director of art education, was appointed master of the school, with the privilege of selecting his assistants. The school opened on the 6th of September, 1873, with an entering class of one hundred and seven students.

The design of the school is to prepare teachers for the industrial drawing schools of the state, who shall also be able to direct instruction in drawing in the public schools. Mr. Smith proved to be the right man for the important office he was appointed to fill. He was thoroughly prepared to direct the work of the new institution, and eminently skillful in interesting the people in adding the art element to the instruction given in the public schools. The success of his school depended, at first, largely upon his personal efforts, and he did not spare either mental or physical labor in preparing courses of instruction and means of teaching, and in superintending the work of the various classes in the school. He had constant calls for addresses and illustrative exercises at teachers' conventions, and it was made his special duty to superintend the teaching of drawing in the State Normal School, Mr. Smith will be remembered as the master who, in the true sense of that term, enriched the work done in our public schools by introducing the art element into our system of public instruction.

An act passed in 1874 declared that no person shall be deemed ineligible to the office of school committee by reason of sex. Many years before this, Deerfield had made choice of a woman to fill the office. By the returns of 1875-76 it appears that five cities and fifty towns had elected women to serve on their school boards. In two towns—Becket and Irving—all the members of the two boards were women, and in the same year Sheffield elected a woman to the office of school superintendent. As seven-eighths of the public-school teachers of the state are women, it seems highly proper that women should be represented in their supervision. Experience has proved that they make good school committeemen, and at this date (1896) not many towns in the state fail to divide the honors of school supervision between the two sexes.

In 1876 parents and guardians were forbidden to permit the employment in any manufacturing, mechanical or mercantile establishment in the commonwealth of any child under ten years of age. The penalty for the violation of this law was a fine of not less than twenty nor more than fifty dollars, to be used for the public schools of the town or city. This law was enacted to prevent the withdrawal of young children from the schools to work in factories or in shops, or to enter the employment of retail store-keepers as errand or cash boys, in violation of the natural rights of the children, and of the settled policy of the state, with reference to public education. The second section of the act of 1876 forbids the employment of any child under fourteen years of age, in any of the above-named institutions, unless during the year next preceding he had attended an approved school at least twenty weeks, and such yearly attendance must continue, that the employment may legally continue. The penalty imposed for the violations of the provisions of this section was a forfeit of not less than twenty nor more than fifty dollars.

Truant officers were required to visit the establishments described by the act at least once a term, and as often as the school committee may require, to see if the provisions of the act were observed.

This compulsory law was an improvement on all previous legislation relating to attendance, but it was defective in that it did not forbid all forms of employment which would interfere with the required amount and time of such attendance.

Most important duties were now imposed upon the school committee by existing laws concerning the administration of school affairs. They were required to select

teachers and examine them for a knowledge of their intellectual and moral character. It was made their duty to examine the schools for a knowledge of the work done by the teachers, and of the progress made by the pupils. The school-houses were placed under their care and control, so far as the use of them was concerned. They were required to make out courses of studies, name the text-books to be used and determine the method of teaching to be practiced. They were to appoint truant officers to act as their agents in the execution of all laws relating to truancy and absenteeism from school. The law imposed upon them the duty of making, or of causing to be made, an annual census of the names and ages of all persons in their respective towns, between the ages of five and fifteen years, and to make a record of the same. In 1876 it was made their duty to inquire into all cases of violation of the law regulating child-labor, with reference to school attendance, and at the end of the school-year to make an annual report of their doings to their towns, and to the state board of education.

On the 19th of May, 1875, the commissioners of the state school fund were authorized and directed to cancel, to the Board of Education, its obligations then held by said fund for fifty-three thousand dollars loaned for the erection of boarding-houses at Bridgewater and Framingham; and the Board was requested to include, in its next annual report, a full statement of facts concerning said obligations, and of its opinions and recommendations, with regard to the increase of the fund and the best way of meeting general educational expenses.

In compliance with the request the Board, in its annual report, dated January, 1876, included a brief history of the school fund and a statement of its present condition, together with recommendations of a plan for providing state aid in support of public instruction. The Board reported that the Massachusetts school fund was established in 1834, and consisted of money then in the treasury derived from the sale of lands in Maine, from the claim of the state on the government of the United States for military services in the War of 1812, together with fifty per centum of all moneys to be received from the sale of lands in Maine, after January 1st, 1835.

The fund was limited to \$1,000,000, the income of which should be appropriated to the aid and encouragement of common schools. In 1851 the fund was allowed to accumulate until it amounted to a sum not exceeding \$1,500,000. In 1859 provision was made to add to the school fund one-half of the proceeds of sales of lands on the Back Bay, Boston. At the close of the year 1874 the fund amounted to \$2,617,732.82.

A resolve, passed in 1854, provided a new mode of applying the income of the school fund. Thereafter, one-half the annual income was to be distributed among the towns to aid them in the support of their common schools, and the other moiety was to be used by the Board of Education to meet general educational expenses. In 1874 one-half the income of the school fund was \$89,287.28, while the general educational expenses were \$100,647.47.

From this state of things it appeared that the income of the fund was insufficient to meet the present demands for improved facilities for education. An attempt was made in 1872 to levy a half-mill tax in favor of aiding the towns in the support and improvement of their public schools. A bill to that effect was earnestly advocated by the Board of Education, and favorably reported by the legislative Committee on Education. It was, however, referred to the legislature of 1873.

In April, 1873, the Committee on Education, to whom was referred the half-mill tax bill of 1872, presented two reports, a majority report in favor, and a minority report against its passage; the latter on the ground that as Boston would

be required to raise one-third of the whole tax, and as the city had recently suffered a great calamity by fire, it would be unjust to burden her with a high rate of taxation. The bill passed the House, but was defeated in the Senate by a majority of one in opposition.

After giving a brief history of the school fund, and of the attempts to supply deficiencies by a half-mill tax, the Board expressed its opinion concerning a proposed increase of the fund to furnish the supply and as follows: "There seems to be but three ways of supplying the needed money: one is by making annual appropriations from the state treasury; one by increasing the school fund to an amount large enough to produce an income sufficient to meet, by the use of one-half of it, all general educational expenses; and one by levying a half-mill or quarter-mill tax in accordance with the recommendation of the Board of Education in 1873. A decided preference was expressed in favor of a tax. It seems, however, to be the settled policy of the state to enlarge the school fund to meet the increasing demands for state aid for educational purposes.

In 1875, preparations were made for representing the educational affairs of Massachusetts at the Centennial Exhibition to be held the following year at Philadelphia. The Governor, with the advice and consent of the council, appointed commissioners for the state, who committed the special interests of Massachusetts in the department of education and science to the state Board of Education. The Board appointed a sub-committee to act with the secretary of the Board on the subject with full power. This committee selected for its agent Mr. John D. Philbrick, for some years the distinguished superintendent of the public schools of Boston, and who was commissioner of education at the Vienna Exposition. Mr. Philbrick, was instructed to arrange the exhibit of Massachusetts schools so as to illustrate her system of instruction from the kindergarten to the university, that the different grades of institutions might be examined in their order, and compared with similar grades existing in other states.

Great interest was taken in the coming exposition, and the commonwealth was anxious to make a creditable display of her cherished educational institutions. Such an exhibit was generally expected from a state that had the reputation of inventing the free public school; of establishing the first university, the first normal school, and the first normal art school in the country; from a state that was known to have an unequalled system of high schools; superior technical schools and colleges of the highest order for women, as well as for men; and that at this time was making the most liberal appropriations for the education of her people of any country in the world.

Although the space allotted to Massachusetts at Philadelphia was too restricted for a full display of her public school affairs, the exhibit she was able to make did not disappoint her friends. The exhibition in the departments of industrial drawing and technical instruction attracted universal attention. For an account of our educational exhibit as a whole, see the report of Mr. Philbrick, the agent of the Board of Education at Philadelphia, and by Mr. C. B. Stetson, for the judges in the department of education.

The Board of Education, at the close of its annual report for 1876, announce an event of "signal importance to the cause of education in the commonwealth." The report says "that the excellent secretary of the Board, Hon. Joseph White, after sixteen years of highly acceptable service, has tendered his resignation. As regards an acquaintance with the history and present condition of our institutions of public instruction, a knowledge of the various statutes bearing on the same, and sincere devotion to educational interests, Mr. White has few, if any equals." These quali-

fications, his long service in the field, and his identification for so many years with our normal school enterprises, render the securing of a suitable successor a task of much difficulty.

During Mr. White's administration the average length of the school year in the towns had increased from seven months, eighteen days to eight months, sixteen days. The average monthly wages of male teachers had increased from \$50.56 to \$84.78 cents, and of female teachers from \$19.98 cents to \$34.25. Private schools and Academies had decreased in number from six hundred and forty to three hundred and forty-one. Public-schools had increased from four thousand four hundred and ninety-seven to five thousand five hundred and forty-two. The high schools of the system had increased from one hundred and two to two hundred and twelve. The Normal School at Worcester and the Normal Art School at Boston had been added to the institutions for the professional training of teachers, and the state teachers' institutes had been increased in number with a larger attendance and improved forms of instruction.

The legislature of 1860 made no appropriation for agents of the Board of Education, and in April, 1861, the agency was discontinued. At the close of Mr. White's term of service, four agents were employed—Messrs. Abner J. Phipps, George A. Walton, Eli A. Hubbard and John Kneeland. These gentlemen made their annual reports at the close of this year (1876), from which we may learn something of the internal life of the public-schools of that time. The high schools were growing in favor; the towns were bestowing more attention upon the construction, care and equipment of their school-houses; teachers' institutes were more fully attended and better adapted to accomplish the ends for which they were established, and normal teachers were gradually introducing improved methods of teaching, often against the protest of school boards and the prejudices of parents. On the other hand, the agents found many school children out of school; many school-rooms destitute of the necessary means of teaching—uncomfortable and entirely unfit for use. The teaching in many cases consisted in assigning lessons from text-books to be memorized and recited as words, without much attention to ideas and less to method. In such schools the notion of education in its philosophical sense did not seem to enter into school work in any of its phases.

The Board of Education, at a meeting held January 24, 1877, elected Mr. John W. Dickinson its secretary, the office having been made vacant by the resignation of Secretary White. Mr. Dickinson passed his early years in South Williamstown, Berkshire county, Massachusetts. He was the youngest but one of a family of nine children. He received his elementary education in the public schools of Williamstown. At the age of nine years he was put to work on the farm, during the summer months, attending the district school for a few weeks only during the winter.

Inheriting a strong desire for a liberal education, he eagerly accepted the opportunity offered him, at the age of seventeen years, to enter upon a preparatory course of studies at Greylock Institute, South Williamstown. He completed his preparatory course of studies at Williston Seminary, Easthampton, and entered Williams College in 1848, from which he graduated with classical honors in 1852. In September following he was appointed assistant teacher in the State Normal School at Westfield, Mass., and in 1856 was appointed its principal. For twenty-one years he performed the duties of his office as principal with fidelity and success. During these years he prepared, for the service of the state and the country, a large number of teachers, whose superior work in the practice of their profession gained for the Westfield Normal School a national reputation. Mr. Dickinson was a diligent and successful

student of pedagogical science. He was among the first in the commonwealth to introduce the reforms in methods of teaching and study which have since been working their way into the best schools of the country. In 1869 Mr. Dickinson visited Europe for the purpose of studying foreign systems and methods of instruction. He was prepared, by study and practice at home, to see what he looked upon as he visited the good schools of Switzerland and Germany, and was able to appreciate the excellence that results from the application of philosophy in determining the ends and means to be employed in public instruction. On his return to the Normal School at Westfield he entered again upon the discharge of his duties as principal, with a new and a deeper conviction of the importance of supplying the schools of the commonwealth with teachers prepared for their work by a thorough professional education.

Although Mr. Dickinson was elected secretary in January, 1877, he did not commence service until May 1, of that year. At a meeting of the Board of Education, held May 31st, it was voted, "That the school committees of the state be invited to hold conventions of their own number by counties, for the purpose of discussing all questions pertaining to the organization of their schools, to the qualification of teachers, to courses of studies, and to methods of teaching."

Conventions of school boards were accordingly held in the various counties for several years, the first associations of the kind ever held in the country. The results produced by this new organization soon appeared in better ideas and a deeper interest in the administration of public-school affairs. The discussions conducted at the conventions directed attention to the need of improved courses of studies, and to the importance of improved methods of teaching, to the necessity of more stringent laws relating to truancy, and to the establishment of truant schools, to the pressing needs of a better supervision of the country schools, and of a more intelligent method of selecting and examining teachers.

The idea of examining the schools of a county, for the purpose of discovering their real excellences and defects, originated at a convention of school committeemen held in Norfolk county in 1878, which resulted in the famous examination made under the direction of State Agent Walton, and published in the report of the Board of Education for 1879.

During the first year of its existence, the Hampshire East Association of School Committees, with some assistance, published a complete course of studies for the nine grades of their elementary schools, which, for its excellence, has not been very much improved by any course made for the same grades since that day. Other courses were made out, and put into use, with such attendant circumstances as to create a new impulse in the work of public instruction throughout the commonwealth. In 1877 the legislature reduced the appropriations for agents of the board, compelling the reduction of the number from four to two.

In 1878 the management of the teachers' institutes was placed under the control of the secretary, assisted by the two agents. The institutes from this time were greatly increased in number, and changed in the plan of their exercises. The first lesson of the day was taught by the secretary, and had for its object to illustrate the true method of teaching all branches of knowledge, rather than to teach the branches themselves. The lessons that followed were taught by the agents of the Board, and by professors from the normal schools and others, all of whom, being expert teachers, were able to illustrate the best manner of making a practical application of the principles of teaching, presented in the first lesson, to teaching the various subjects introduced into the public schools.

It was the purpose of the institutes to make the exercises especially helpful to the teachers. In proportion as they accomplished this end, they became popular with the teachers, with school boards, and with the people. Wherever institutes were held, the school committees in all the towns invited, closed their schools, and in many cases came along with their teachers, impressed with the idea that an intelligent discharge of the duties of their office required professional knowledge also. The citizens of the towns in which the institutes were held always responded generously to requests for entertainment. The exercises of the day were followed by evening lectures on some topics related to popular education.

The institutes conducted in this way turned the attention of the teachers to studying the principles of education; they led school officers to a more careful selection of teachers, and the people to a more cordial and generous support of their schools.

The report of the Board of Education for 1878-9 recommends the employment of teachers trained in the normal schools on account of their superior methods. The returns for the year show that ninety-five per cent. of normal graduates teach in the public schools of the state, and yet only thirty-seven per cent. of the teachers have had a professional training. The report recommends the levy of a small state tax for the better support of the normal schools and for the relief of the small towns. Attention of the legislature is called to the necessity of providing for the better supervision of the public schools. As the cities and large towns were already provided with special superintendence to their great advantage, the report recommends encouraging the small towns to unite in convenient districts as a means of supplying themselves with the same efficient agency. From the returns made to the State Board of Education, and from the personal examination made by the agents of the board, it was manifest that the defects found in the schools were due primarily to defective supervision. This general truth was derived from the fact that the schools under competent supervision were universally the best. An analysis for the reasons of the fact made it appear that, as the teachers employed were selected by the supervising authorities, and as the schools are always what the teachers make them to be, the conditions of good schools are to be established primarily by a special and intelligent oversight. It was evident, therefore, that all permanent reforms in the character of public instruction must begin with a change in the character of its supervision. This idea led the secretary of the State Board, in his annual report, to make an earnest plea for the establishment of an educated supervision over all the public schools.

There was, at this time, very little true teaching in the public schools. Words, quite generally, were made the original source of knowledge of things, and learning consisted in committing to memory the contents of text-books. The oral-objective method of teaching was carefully discussed in the report, to show what are the ends to be secured by public school exercises, and what is the method of instruction best adapted to accomplish the ends.

Since the establishment of the grammar schools in the system, strong objection had always been made to the public support of secondary instruction. The report attempted to illustrate the relation of elementary to secondary knowledge, by showing that a knowledge of individual facts is of small importance, unless it terminates in a knowledge of what is universally true or in scientific knowledge. The relations of the Normal Schools to educational progress was discussed with a view of exciting a more general interest in their support and patronage. The plan of conducting teachers' institutes was described by the secretary and agents, that their educational value might be more generally known and appreciated.

The report of the secretary closed with a brief discussion of the Moral Element in Teaching; of the legal duties of the teacher with reference to its faithful introduction into all the public schools, and of the ways and means of conducting moral instruction. The Hon. P. Emory Aldrich contributed an able article on the Constitutional Powers of our Civil Government in Relation to Popular Education. Professor Thompson, principal of Worcester Free Institute, described the Characteristics of Schools of Technology; President John D. Runkle illustrated a "Method of Introducing the Manual Element into the Public Schools," and Mr. Channing Whitaker gave an account of the work done under the direction of the Industrial School Association, 23 Church street, Boston; Mr. Walton and Mr. Hubbard made interesting reports of their work during the year, and Mr. Kueeland made a report of his labors during that portion of the year preceding his retirement from the service of the Board.

Reference has been made to the topics introduced into the report of the Board for 1877-8, that the condition of the public schools at the time, may be known, and that the principal subject to which the Board of Education and school legislation turned attention for the next seventeen years, may be presented.

In 1878 the school committees were required to obtain satisfactory evidence that the work in the private schools, attended by pupils of school age, was equal in thoroughness and efficiency to the work in the public schools, and that the teaching was conducted in the English language. At the same time the compulsory law relating to attendance was strengthened by an act requiring the cities and towns to report to the secretary of the Board of Education concerning their compliance with the law relating to truancy, withholding their share of the income of the school fund as a penalty for non compliance. The returns made by the town committees revealed the fact that no adequate provision was anywhere made for the education of this class of children. Some were sent to almshouses, some to places for the temporary confinement of the criminals of the town, and many others were neglected.

This information led the Board of Education to urge the towns to accept the provisions of the law of 1873, requiring, on the petition of three or more cities or towns in any county, the county commissioners to establish a truant school for the county. Definite information received, concerning school attendance and the general management of the schools, convinced the Board of Education that special school supervision, by competent persons giving their whole time to the study of the principles of education and to their practical application, was necessary to the accomplishment of the best results. A resolve, to this end, was introduced into the legislature, passed and approved in 1880, requiring the Board of Education to report to the next legislature during the first week of the session, a plan providing for a uniform system of supervision for such of the public schools as are not provided with special supervision.

In 1881, a plan for common-school supervision was presented to the legislature, and referred to the committee on education, and that body, after several hearings, reported inexpedient to legislate. Mr. Higginson, of Cambridge, a member of the House, moved a substitute bill providing for the appointment of ten supervisors of common schools, to hold office for three years, unless removed by the Board of Education. The bill provided for a division, by the Board, of all the towns in the commonwealth returning an assessed value of less than \$3,000,000, into ten districts; no town already provided with a superintendent of schools to be included in a district. The Board of Education was then to assign a supervisor of schools to each district. The supervisors were to be under the general direction of the secretary of the Board

of Education, and were to aid the school committees in selecting teachers and in the general management of the schools. They were to have no authority except that delegated to them by the committees. The act provided for a redistribution of the income of the school fund, and for paying the salaries of the supervisors from the half of said income otherwise given to the towns. Although the bill was defeated, the discussion it occasioned convinced many that it ought to pass, and it prepared the way for future favorable action on the same subject.

The legislature of 1881 granted to women the right to vote for school committees. As women are supposed to be uninfluenced by political considerations, and as they are instinctively interested in all that which pertains to the education of the children, the general court gave to them the right of a voice in the election of those to whom is granted almost unlimited authority in the management of the schools.

The exercise of the right to vote for the school committee has greatly increased the active interest which the educated women of the commonwealth are taking in whatever relates to the character of the schools, or to the conditions that affect their successful administration. Stimulated by a consciousness of power to influence things they are urging increased attention to the sanitary condition of school-houses, the cultivation of more cordial relations between school authorities and teachers, and a closer sympathy between teacher and pupil, and they are a unit in favor of rendering to female teachers a just compensation for their services.

The old school district system, after a somewhat unstable existence of ninety-four years, was finally and permanently abolished by an act approved May 12, 1882, to take effect January 1, 1883. The following is a brief historical review of the system. The act of 1789, establishing the system, simply authorized the towns to divide their territory into districts with defined limits. In 1800 the selectmen of the towns were authorized to issue warrants for district meetings; the voters in the districts were directed to choose a clerk, and to raise money for the erection of school-houses, and for the purchase of the means of teaching. The assessors of the respective towns were required to assess such sums of money as might be voted by the districts. In 1817 school districts were made corporations in name, and were empowered to hold, in fee simple or otherwise, real or personal estate for the use of the schools. In 1827 the districts were allowed to choose prudential committees to whom were intrusted the care of school-houses and the nomination of teachers. In 1859 the district system was abolished, and restored in the same year. In 1869 the system was again abolished by a unanimous vote in the Senate, and by an almost unanimous vote in the House, only nine votes being cast in the negative. In 1870 the system was partially restored on the petition of a few towns, generally those that had suffered most from its operations. It was abolished for the last time in 1883, having accomplished some good ends, but being, on the whole, clearly opposed to progress and economy. Its abolition restored the schools to the care of the towns, subject to the laws of the state.

The state, as a responsible guardian of the moral as well as the intellectual education of her children, prohibited, in the same year, and on the same day (May 12, 1882), that she restored to herself the direct control of the public schools, the granting of licenses for the sale of intoxicating liquors, in any building or place, within four hundred feet of any building, occupied in whole or in part, by a public school.

In 1884 legal authority was granted to the introduction, into the public schools, of training in the use of hand tools. The idea of introducing the industrial element into courses of public instruction originated in a desire to train the children of the poor to provide for themselves. Sir Matthew Hale recommended the establishment

of industrial schools in every parish in England. John Locke would check the spread of pauperism, and relieve the country from its burdens, by the establishment of labor schools, in which the children of the poor could be supported and trained to some occupation. The philosopher Kant thought all children should receive, at school, instruction in manual labor as well as in books, and Fichte would combine learning with labor.

In Massachusetts it is not considered to be within the province of the public school to teach the trades nor the professions, but to furnish such instruction as has a tendency to produce intelligent and loyal citizens. Exercises, therefore, in the use of hand tools, like all other legitimate public school work, have for their ends both physical and mental development. Manual training is now considered to be an important element in every course of disciplinary instruction.

Prior to 1873 children were required to provide at their own expense such text-books as they might need to use in the schools. In this matter our free schools were not absolutely free. Many children of poor parents who were unable to purchase the necessary means of study were deprived of school privileges, although attendance upon the schools was compulsory. In 1873 an act was passed, permitting cities and towns to authorize their school committees to furnish text-books free to all the school children of the public-schools. A very few towns only availed themselves of the provisions of the permissive Act. Fall River, Lowell, Woburn and Watertown were among the number. Woburn claims the honor of being the first town in the state to supply under the permissive law all its school children with free text-books.

In March, 1884, the permissive law of 1873 was made compulsory, with an amendment requiring all school supplies to be added to the free list. The act was to take effect upon the first day of August, 1884. Every town in the state immediately complied with the provisions of the law, by furnishing free of cost to all pupils of the various grades in the public schools all text-books and supplies required to be used in their courses of public instruction.

In December, 1885, a circular of inquiry was sent to the superintendents or school committees of the cities and large towns in the State, for the purpose of learning the results of the application of the free text-book law. The circular contained inquiries relating to economy of money and time; to the spread of contagious diseases by the common use of the free books; to the advantages and disadvantages of the new system as compared with the old; and to the estimation in which it was held by teachers, pupils and parents.

Replies were received to this circular from twenty-eight towns and cities. The replies show that the daily attendance had increased; that the children were remaining longer in the schools, especially in the grammar and high schools; that the average cost of the books and supplies was at least 35 per cent. less to the town than to the pupil; that there was a great economy of time, as the classes were supplied with books on the first day of the term. No intimation was given in the returns that the health of the children was endangered by the use of the free books; on the contrary, the use was so regulated by rules as to furnish an important means of training to habits of neatness and order. The system seemed, by the returns, to be regarded favorably by all.*

Physiology and hygiene, with special reference to the effects of alcohol, stimulants and narcotics upon the human system, was, by a law passed June 16, 1885, made a required study in all grades of the public schools. This law was enacted

* Report by William Connell, Supt. of Schools, Fall River to the Board of Education, 1884-5.

that the public school might co-operate with the home and the church in training the young to good physical and moral, as well as intellectual habits.

At the time the law was passed the school-teachers were poorly prepared to comply with its provisions. They did not know much of alcohol nor of the human system, and they knew still less of the effect that would be produced by bringing them together. If they taught by the use of text-books, they were dealing with words simply as physical things, but not as signs of ideas. If they attempted to use the laboratory method, they soon discovered that they were teaching what they did not themselves understand. A little direct observation proved to them that the relations of alcohol to dead matter were not the relations of alcohol to matter under the control of the principles of life.

The teachers, however, entered earnestly into the work of preparing themselves to teach the facts relating to physical health, and to train their pupils to observe the rules of living that lead to habits of temperance and self-control.

The more scientific phase of the subject is now generally omitted, or introduced only into the secondary courses of instruction. Great credit is due to the women of the towns for the important service they have rendered the cause of temperance by the influence they have exerted in securing such legislation as requires temperance to be taught to young children in the public schools.

In 1886 the school committee in any city or town was authorized to elect any duly qualified person to serve as teacher of the public schools during the pleasure of such committee, provided the person elected had already taught a public school in such town for a term of not less than one year. It was thought that the tenure of office thus secured would remove an occasion of anxiety from the teacher's mind; that permanency would add dignity to it as well as security; that if the teacher's office is made honorable and sure to him during his good behavior, the best talent might be induced to enter the profession thoroughly prepared for the successful performance of its responsible duties.

The provisions of the tenure act have not yet been generally accepted by the towns, and yet they have had a marked influence in leading school boards to be more thoughtful in the exercise of their power affecting the vital interests of those they employ.

In the same year (1886) every city of the commonwealth, of fifty thousand inhabitants or over, was required to establish and maintain an evening high school, on petition of fifty or more residents of not less than fourteen years of age, who might certify their desire to attend such school. This act completed the system of evening schools by making it similar in its grades to our system of day schools.

The school laws of Massachusetts provide that the school committees of the towns shall have general charge and superintendence of the public schools. These laws have received a judicial interpretation, which shows that the terms general charge and superintendence express almost unlimited authority in the administration of school affairs. Both philosophy and experience clearly indicate that the efficient exercise of this authority requires in the school superintendent intelligence, learning, experience and the exclusive devotion of his time and labor to the duties of his office.

The selection and examination of teachers, the choice and arrangement of topics of study, the collection and distribution of school supplies, the supervision and inspection of the schools with reference to methods of instruction and government employed by the teacher, and to the progress made by the pupils, the organization of the various grades of schools into a system, the care of school-houses and of school

attendance, are some of the important duties implied in the terms, "general charge and superintendence of the schools."

The school committees of the towns have generally been intelligent and faithful men. They have done good service, and they constitute a body of officials necessary to the administration of public instruction. The history of school supervision in the State shows steady progress in its efficiency from ancient times when it was exercised by the chosen men of the town; along the years to the time when the ministers of the parishes were added as examiners of the teachers and visitors of their schools, down to the election by the towns of special agents who, under the authority of law, are entrusted with all the duties and responsibilities implied in school supervision. But school supervision by school committees has never turned its attention, to any perceptible extent, to the philosophy of education, to the necessity of employing trained teachers, to the advantages of a true method of teaching, nor to the inquiry for ultimate ends to be secured by school exercises. Nor could this be expected from men chosen without direct reference to special qualifications for the office, and who can not afford to neglect their regular business for pedagogical study nor for special oversight of public instruction.

In the progress of educational ideas it became evident that another agency must be introduced into the management of the public schools. Special superintendents must be appointed to act as agents of the school committee in doing for them that which technically belongs to supervision and inspection of the schools.

In 1854 towns and cities were permitted to appoint such superintendents. Ninety-one towns have since that time availed themselves of the provisions of the permissive law. In 1870 an act of the legislature provided that two or more towns may unite to appoint the same person as superintendent. Twenty towns have since united for this purpose. The schools of these one hundred and eleven towns became the best in the state. Similar results are reported from all countries wherever expert school supervision is found, so that it is the opinion of those best able to judge that the schools of a country will be good as their superintendence is good, and poor as their superintendence is inefficient.

The cities and large towns having provided themselves with schools organized and conducted under the direction of skilled supervision, the Board of Education turned its attention to the needs of the small towns that without help from the government could not offer to their children educational advantages equal to those of their more fortunate neighbors.

In 1888 the necessary legislation was secured by which provision was made for aiding the small towns that would unite in convenient districts for the employment of superintendents of schools. Under the provisions of the law of 1888, perfected by an amendment in 1893, one hundred and twenty-two towns of low valuation have formed into superintendent districts. From the returns of 1895 it appears that 91.2 per cent. of all the school children of the state were then in schools under competent supervision. The superintendent law granting aid to the county towns has produced a revolution in the administration and work of the country schools.

It has brought into existence an agency competent to improve the teaching force, and with it the means and methods of instruction. It has added full ten per cent. to the number attending the schools, and has excited a new interest in the minds of the people in public education.

An act was approved May 17, 1888, which provided that no child under thirteen years of age should be employed at all in any factory, work-shop or mercantile establishment; nor in any indoor work for compensation, nor in any manner during

the hours in which the public schools are in session, unless within the year next preceding he had attended school for at least twenty weeks.

Provisions were made in this act for the inspection of factories and other places where children may be employed, and for issuing certificates to those who were legally ready for employment. The duties of parents and guardians and employers were specified, and penalties for neglect were defined. The act was amended in 1889 by providing that no child, after reaching the age of thirteen, shall be entitled to a certificate that he has come to the age of fourteen, unless he has attended school according to law since he was thirteen, or unless he can read at sight and write simple sentences in English, or is exempted by law from such attendance.

In the same year (1888) truant officers under the direction of the school committee were authorized to seize upon truant children wandering about the streets, and take them to school without a warrant. The school superintendents were everywhere active agents of the school committees in calling their attention to cases of truancy, and directing the truant officers in the discharge of their duties.

In the same year (1888) that more effective laws were passed relating to attendance upon the schools, provisions were made for improving the sanitary condition of school-houses. The school-houses were to be kept clean and supplied with all the conveniences necessary for the physical comfort of the pupils. The law required every school-room in the state to be properly ventilated. These provisions were to be enforced by the inspection department of the district police force.

If a school committee, or public officer or corporation, having received an order from an inspector to provide the sanitary conditions required by the act, should neglect for four weeks to comply with the order, a fine not exceeding one hundred dollars was to be imposed on the delinquent as a punishment. The act was amended in 1891 by allowing an appeal from the inspector to the board of health, and by granting authority to the board to annul, alter or affirm his order. After the passage of the sanitary act the state inspectors turned their special attention to the sanitary condition of public buildings, not neglecting the school-houses.

Although sixty years of improvement had wrought great changes in the construction of school buildings in the state, since Horace Mann published his first report, still a large majority of the modern structures were found, on examination, to have been planned with reference to external proportions rather than to convenience, health and comfort. The inspectors did some good service for the State. They gave orders for improved means of ventilation to be put into old school-houses, and they required special attention to be given by school architects to all sanitary conditions in the construction of new buildings. They did more than this. Their movements, made under the authority of law, awakened a general interest in sanitary engineering, and in the application of its principles to the location, construction and use of all buildings in which the health of the occupants is to be regarded.

In 1891, every town not required to maintain a high school was authorized and required to pay the tuition of any of its children who desired to attend a high school in another town, providing the parents or guardians of such children obtain the approval of the school committee of the town in which the children and parents or guardians reside.

At this time the high schools were in great favor in the commonwealth. Some of them, especially those supported in the cities and large towns, were much superior to the colleges of twenty years before, in so far as instruction in secondary studies is concerned. Their graduates were occupying important places in the various occupations and professions, and a majority of the members of both houses of the state

government came to their places from the high schools. The returns of 1890-91 report two hundred and forty-four high schools kept in two hundred and twenty-three cities and towns. Fifty-nine towns, having less than five hundred families, were voluntarily supporting high schools.

The total population of the state at this time was 2,238,943. The population of the towns maintaining high schools was 2,120,279, or $94\frac{7}{10}$ per cent. of the whole population. The law of 1891 made ample provision for the high-school instruction of the children of the other $5\frac{3}{10}$ per cent. of the people.

Massachusetts doubtless has the best system of secondary schools in the world. This accounts for the excellence of her elementary schools, and for the success of her superior and technical schools as well. It is an established fact that wherever a high order of middle schools abounds free to all, there all grades of schools below and above them flourish also.

The Board of Education passed an order March 3, 1894, to take effect in 1895, limiting the candidates for admission to the normal schools to graduates of approved high schools, or to persons of equivalent education. This was done for the purpose of raising the standard for admission to these institutions. As there is no definite standard for graduation from the various high schools of the commonwealth, and as the term equivalent scholarship has no definite meaning, it is thought by some that the standard for admission to the normal schools would be more surely raised, if all candidates were required to pass an examination, which would test their qualifications for entering upon a normal school course of studies, rather than to rely simply upon their opportunities for learning.

If the terms for admission to the normal schools were made so easy as to let in some poor material, the terms of graduation should be so hard as to let no one out with the approval of the state, unless he is able to furnish good evidence of ability to teach.

Since authority to nominate the teachers of the public schools has been delegated quite generally to school superintendents, the demand for normal graduates has increased very much above the supply. This demand led to the establishment in 1895, of four new normal schools, making, with the normal art school, ten in all now supported by the state. From the returns received for 1894-95 we learn that the public schools required ten thousand four hundred and nine teachers. Of this number four thousand three hundred and sixty-eight had attended a normal school, and three thousand seven hundred and thirty-four were normal graduates. Many of the cities and some large towns were supporting training schools in which their teachers were receiving such instruction as practice under accomplished instructors could furnish. Probably a large majority of the ten thousand teachers of the state had received some professional training. The pupil teachers of the training schools are generally graduates of the high schools.

Secretary Dickinson resigned his office in January, 1894, and Mr. Frank A. Hill, of Cambridge, Mass., was appointed his successor. Mr. Hill was a successful high-school master, and an educator of good reputation. He entered upon the duties of his office under the most favorable circumstances. The legislature of the State favored all demands made for aid in the support of the public schools, and the towns were vying with one another in their efforts to perfect their systems of public instruction. The school spirit in the commonwealth was all that could be desired.

Thus we find that the history of the free public school in Massachusetts exhibits a steady growth from a simple beginning in 1647, when the state required the chosen men of the towns to see that every child should be instructed in the elements of

knowledge, to the present, when all the grades of learning are offered free to all, as they have the capacity to receive it, or the ability to use it in performing the duties of private life, or of citizens of a highly civilized republican state.

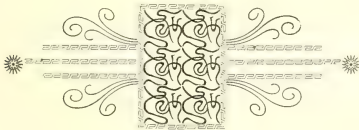
The Massachusetts system of public schools is a complete system. It now includes the kindergarten and the high school, and all grades between them. It furnishes opportunities for elementary and scientific instruction. It provides for the cultivation of the various faculties of the mind in the order of their development. Ample provision is made for the education of the defective classes in schools for the blind, and the deaf, and the feeble-minded, and, in parental schools, for those who would otherwise lead idle and dissolute lives. The system includes, also, provision for efficient school supervision, under which the work of the schools is directed to the accomplishment of the ends for which they were established.

The state school fund now amounts to nearly \$4,000,000, with provisions for an annual increase until it shall reach the sum of \$5,000,000. One-half the income is paid over to towns whose taxable property does not exceed \$3,000,000. The whole amount returned as expended for public schools during the school year of 1894-95, was \$10,661,366.22, a percentage of four and one-third mills of the entire taxable property of the commonwealth, equal to \$26.07 for each child between five and fifteen years of age, and sufficient to support the public schools an average of nine months and six days of the school year.

As a result of these things, illiteracy is unknown in Massachusetts among her native population, and the foreign-born of school age are put into the schools as soon as they become citizens of their adopted country.

The schools themselves are not yet perfect, and they never will be perfect. The conditions of such perfection are too complicated, and too much beyond the comprehension and control of human agencies to exist anywhere except in a fond imagination; but the use of a true philosophy of education, with abundant means for its application, will enable the commonwealth to be ever-improving her educational institutions and to rejoice in the consciousness of improvement.

Massachusetts deserves commendation for what she has done for popular education. She has a right to be proud of her system of public schools, and to rejoice in the civilization they have cultivated.



CHAPTER CXXXVIII.

THE HISTORY OF MEDICINE IN MASSACHUSETTS.

BY HENRY O. MARCY, A.M., M.D., LL.D.

Of Boston.



THE history of medicine in Massachusetts, from the founding of the colony until the present, may well be considered an epitome of the science and art, applied to the cure of the sick and injured of the race. However, to the special student it is necessarily fraught with a more than general interest, since, in its local development, it is intimately interwoven with every phase of colonial, state and national history.

The superficial student, of any time, descants glibly of the progress, as evinced in his present, and derides as of comparatively little value the opinions of his predecessors. This has been especially true in the not remote past of many who have written concerning the cure of the sick, as evidenced by medical practitioners of a preceding century. To many it has been an agreeable task to satirize the members of the medical profession as a set of ignorant, thoughtless men, in whose hands the patient ran the gauntlet of bleeding and purgation, and might have been considered fortunate to have escaped to narrate his gruesome experiences.

The medical profession has been the butt of ridicule, and is likely to remain so in the hands of such flippant writers; but the real student of history knows that, coincident with civilization, a certain part of the best trained in all countries have been carefully devoted in the administration of their best endeavors for the relief of suffering humanity.

Even in the early civilization of the Egyptians we find abundant evidence of real scientific research in the investigations of medical and surgical subjects. The history of Greece and Rome furnish long lists of distinguished medical men, trusted for their learning and practical ability, and accepted in honorable mention as the peers of the best philosophers and statesmen of the time.

The year, when the settlement of the Massachusetts Bay was commenced, at Charlestown (1628), marks an era in the history of medicine, since Harvey first gave to the world, in this year, his remarkable treatise upon the circulation of the blood. For the century preceding, the practice and theory of medicine were mainly founded upon the teachings of Hippocrates and Galen, with ever-increasing additions from the chemical school.

Harvey's discovery of the circulation of the blood furnished an explanation of many vital processes, which was reconcilable with the ordinary laws of mechanics, and gave a special stimulus to the spirit of inquiry and innovation of scientific importance. The method of clinical instruction in hospitals, inaugurated by the

Italians, was introduced into Holland, where it was greatly developed, especially at Leyden, in the hands of the celebrated Sylvius.

Before the first half century of colonial development had elapsed, England gave to the world her great clinical teacher, Thomas Sydenham, whose influence upon European medicine, especially English practice, was very great. His principles were welcomed as a return to nature by those who were weary of theoretical disputes. He introduced the milder and better way of treating fevers, especially small-pox, and gave strong support to the use of specific medicines, noteworthy, Peruvian bark. His friend, Dr. John Locke, the great philosopher and physician, summed up the practical side of Sydenham's teachings, as follows: "You cannot imagine how far a little observation, carefully made by a man not tied up to the four humours (Galen) or sal, sulphur, and mercury (Paracelsus), or to acid and alkali (Sylvius and Willis), which has of late prevailed, will carry a man in the curing of diseases, though very stubborn and dangerous; and that with very little and common things, and almost no medicine at all."

Two schools of medical practice prevailed in Europe: the one taught the use of vegetable substances alone; the other advised, for the most part, mineral compounds. The first of these schools styled themselves the Galenists, since they followed the teachings of Galen, the ancestry of the botanic doctor of the last generation, the eclectic of to-day. The other school accepted the teachings of Paracelsus, and gave "chemical" medicines, so-called, mineral compounds, and a few of the most active vegetable extracts. These men were frequently called chemists. The rivalry between the two schools was naturally a bitter one, but from each comes the name commonly ascribed to the apothecary, as druggist and chemist.

The literature of the medical profession was scanty, and consisted generally, in America, of certain limited facts concerning disease, together with a knowledge of certain drugs which were to be taken as a remedy for certain diseases.

Although in the early period of the colonial settlement the practice of medicine was, in a considerable measure, associated with that of the clerical profession, the records of the colonists clearly show that they recognized the importance of a specially trained surgeon, and to supply this need they entered into an agreement with one John Pratt, who came from England and settled in Cambridge. He was undoubtedly the first physician recognized as a "Doctor of Physick." It is recorded on a fly-leaf of the "Colony Records," Vol. I., under date of March 5, 1628, that said Pratt came to Cambridge under an agreement with the "Company of Adventurers." A proposition being made to entertain a surgeon for the plantation, Mr. Pratt was propounded as an able man upon these conditions, namely: "That £40 sterling should be allowed him, viz., for his chest £25, the rest for his salary the first year; provided he continue three years, the company to be at the charge of transporting his wife and a youth, to have £20 a year for the other two years, and to build him a house at the company's charge, and to allot him one hundred acres of ground; but, if he stay but one year, then the company to be at charge of his bringing back to England, and he to leave his servant and the chest for the company's service." It is in evidence that he practiced with, and sought the good of the settlement for some years, but becoming dissatisfied, he wrote a letter of complaint to a friend in England, because of which he was called sharply to account by the magistrate in 1635.

It will be remembered that at this time, Cambridge, the so-called New Towne, was the seat of government for the colony, and the hope was expressed by Governor Dudley that men of ability might be attracted here by the advantages which the set-

tlement offered. The courts, both general and particular, were held at Cambridge exclusively until May, 1636, when they were removed to Boston.

Although not germane to the history of medicine, this letter of John Pratt is of sufficient interest to refer to, somewhat in detail. It is clearly evident that, then as now, the attractions to induce settlers were emphasized in glowing language, and that the deprivations and hardships, incident to a new country, oftentimes caused a longing to return to old England, and that this homesickness found expression in strong language of discontent. The original letter appears not to be in preservation, but it was deemed of sufficient importance, coming from such a source, to be taken notice of by the authorities, lest therefrom permanent harm should come to the colony.

"At the court of assistants," says Winthrop, Nov. 3, 1635, "John Pratt, of New Towne, was questioned about the letter he wrote to England, wherein he affirmed divers things, which were untrue and were of ill-repute for the state of the country, as that here was nothing but rocks, and sands, and salt marshes," etc. He desired respite for his answer until the next morning, then he gave it in writing, in which, by making his own interpretation of some passages and acknowledging his error in others, he gave satisfaction, his offence was pardoned, and he continued to reside in Cambridge for nearly ten years, when he sailed for England with Captain Thomas Coytmore, and together with his wife was wrecked and drowned near the coast of Spain in December, 1646.

"This man was above sixty years old, an experienced surgeon, who had lived in New England many years and was of the First Church at Cambridge, in Mr. Hooker's time, and had good practice and wanted nothing. But he had been long discontented, because his employment was not so profitable to himself as he desired, and it is like he feared he should fall into want in his old age, and therefore he would needs go back to England; for surgeons were then in great request there, occasioned by the war, but God took him away childless."*

This dissatisfaction, of which the letter referred to, written by Surgeon Pratt, grew to such proportions that rival factions centred about the two great ecclesiastics of the day, Mr. Cotton, of Boston, and Mr. Hooker, of Cambridge, both physicians as well as clergymen, which resulted in Mr. Hooker, accompanied by more than fifty families removing to Hartford, Conn. Of the original settlers, there are reported to have been but eleven families left, which gave little need of a practitioner of medicine in their midst.

The bitter persecution in England, to which the Puritans had been subjected, had caused them to see the possibility of a removal to the new world, and a considerable number of their ministers had, on this account, studied medicine. These men formed a large proportion of the early physicians of the colony. As a rule, they had been liberally educated, and some of them are the authors of the first medical treatises published in America. For the most part they practiced only among the members of their own respective societies. During the period of the early settlement of the colonies few men were specially trained in the practice of physic, and medicine was distinctly an art rather than a science, the period which preceded the teachings of Sydenham, under whose guidance the art of medicine may be said to have taken a new departure.

I quote from the "Memorial History of Boston," Oliver Wendell Holmes.

"I had the privilege of examining and reporting to the Massachusetts Historical Society on a paper of medical directions placed in my hands by Hon. Robert C. Winthrop, the president of

* Savage's "Winthrop," Vol. I., p. 173; II., p. 239.

the society. It is headed, 'For my Worthy Friend, Mr. Winthrop,' and signed, 'Ed. Stafford.' Its date is 1643, and I was not able to decide whether it was intended for Governor John Winthrop or for his son, the Governor of Connecticut. The list of remedies is made up principally of simples, or vegetable substances; St. John's wort, black hellebore, great bryony-root, the four great cold seeds, maiden-hair, fennel, parsley, witch-hazel, elder, clown's all-heal (*stachys palustris*), saffron, fox-glove, jalap, scammony, and snake-root are among these, many of them inert, some dangerous, if not carefully handled. Caranna and tacamahacca, two gums, of which it used to be said, 'Whatever the tacamahacca has not cured the caranna will,' and Burgundy pitch are also enumerated. Of mineral substances, lime-water, salt, salt-petre (*crocus metallorum*), sulphuretted oxide of antimony are mentioned."

"The Winthrops, to one of whom Dr. or Mr. Stafford's directions were given, assisted their fellow-citizens with medical counsel as well as in many other ways. The Governor of Connecticut, John Winthrop, treated a great number of medical cases in Hartford and left a record of his practice extending from 1657 to 1669. This manuscript was also intrusted to me. I examined it very carefully and reported upon it in the lecture before the Massachusetts Historical Society to which I have already referred. From it we may get an idea of what was likely to be the kind of treatment to which our Boston predecessors were submitted. The excellent Governor seems to have been consulted by a great number of persons, to have had a wider circle of practice, it may be suspected, than many of those who called themselves doctors. The common diseases of all ages and both sexes appear to have come under his care. Measles and their consequences are at first most prominent, and fever and ague had often to be treated. He used the ordinary simples, dear to mothers and nurses, elecampane, elder, wormwood, anise, and the rest, and beside these certain mineral substances. Of these nitre was his favorite. Another favorite prescription was spermaceti, which, like Hotspur's fop, he seems to have considered 'the sovereign'st thing on earth,' for inward bruises, and often prescribes it for falls and similar injuries. Other remedies were antimony, now and then a little iron, or sulphur, or calomel, rhubarb, jalap, horse-radish (which I remember Bullen recommends for hoarseness), guaiacum, and the old mithridate or farrago, which, like so many foolish mixtures, owed all its real virtue to opium. He amused his patients with doses of coral and amber, and sometimes gave them (let us hope without their knowing it) some of those unmentionable articles which insulted the senses and the stomachs of seventeenth and eighteenth century patients."

The founder of Boston and governor of Massachusetts, John Winthrop, Sr., was well versed in medicine, but his public services to the colony were so marked that this practical side of his life is seldom thought of. The venerable Cotton Mather says of him just before his death, that he had been "a help for our bodies by physicks, for our estates by law."

In his "History of New England" (II. 315, 316), Governor Winthrop mentions the first appearance of specific disease in Boston. It was brought from Spain by a sailor in 1646, and is called *Lues Venera*. It was some time before its real nature was discovered by such in the town as had skill in physic, but there was not any in the country "who had been practiced in that cure." Some sixteen persons became infected. At this period fortunately a young surgeon arrived, "who had had experience of the right way to cure that disease," and, as the record goes, "he took them in hand, and through the Lord's blessing recovered them all in a short time." The disease is supposed to have been spread by the neighbors who drew the breasts of the sailor's wife as well as suckled her baby. It was thought by some, that the woman was infected by the mixture of so many spirits of men and women as drew her breasts."

Among those who came over in Winthrop's fleet was Richard Palgrave, a physician from Stepeny, London. He settled in Charlestown, and lived about twenty years after coming to New England.

The apostle, John Eliot (1604-1690), under date of September 4, 1647, writes to Mr. Shepard, the minister of Cambridge, and expresses the desire—

"Our young students in Physick may be trained up better than yet they bee, who have only theoretical knowledge and are forced to fall to practice before ever they saw an Anatomy made, or duly trained up in making experimants, for we never had but one Anatomy in the Countrey, which Mr. Giles Firmin (now in England) did make and read upon very well, but no more of that now."

As anatomy is the old name for a skeleton, Mr. Firmin may be considered in point of time the first medical lecturer in the country. His instruction must have been crude—comprised of informal talks of the dry bones before him—but even this could be of great help to the learners. He excited an interest in the subject to such a degree, that at the session of the General Court, October 27, 1647, just following the date of Eliot's letter they resolved,—

"We conceive it very necessary for y^{er} such as studies physick, or chirurgery, may have liberty to reade anatomy and to anatomize once in four yeares some malefacto' in case there be such as the Courte shall allow of."

Mr. Firmin studied at the University of Cambridge, England, and was learned in medicine. After a time he moved to Ipswich, where he was known as a physician. Subsequently he returned to England.

Charles Chauncy, that stern Puritan president of Harvard College, and also Leonard Hoar, who succeeded him in the presidency, were regular graduates of medicine at Cambridge, England. Chauncy left six sons, all of whom were educated at Harvard College, and became preachers. "They had," says Cotton Mather, "an eminent skill in Physicks added unto their other accomplishments, which, like *him*, their father, they used for the good of many, as, indeed, it is well known that until Two Hundred Yeares ago, Physick in *England* was no Profession distinct from Divinity."

John Rogers, the fifth president of the college, was also a practitioner of medicine. Hoar was the first president who was a graduate of the college, but Rogers was the earliest graduate who became its president later. Elisha Cooke was a prominent physician as well as a politician of this period. He was born in Boston, September 16, 1637, and graduated at Harvard College in 1657, being one of the first natives that studied medicine.

Harvard College was founded in the year 1638, and, during that period until 1750, there had been but nine of its graduates who had ever received a medical degree. Of this number, two had taken it at Padua, in Italy, one each at Cambridge, Oxford, Aberdeen and Leyden, and the three others very probably in England. The degree given at Oxford was Baccalaureate of Medicine. Between the classes of 1737 and 1750, there were five graduates who, many years afterwards, received from the college the degree of M.D., *pro honoris causa*. They were Dr. Edward A. Holyoke, Dr. Cotton Tufts, Dr. John Sprague, of Dedham; Dr. Thomas Bullfinch, of Boston, and Dr. Oliver Prescott, of Groton.

The colonial authorities took steps at an early day to guard against the introduction of infectious and contagious diseases from foreign ports. A strict quarantine was established by order of the General Court on March 16, 1647, prohibiting the landing of persons or goods from such vessels. No further sanitary regulations were adopted until October 11, 1665, when a warrant was issued by the General Court ordering vessels coming from England to be placed in quarantine. This was on account of the "plague" existing in London at this time, but it was repealed two years later. The quarantine grounds were near the Castle, now known as Fort Independence. These two orders, adopted to meet the emergencies, comprise the

whole legislation of the seventeenth century, so far as it relates to quarantine in Massachusetts.

In 1693 the yellow fever was brought to Boston from the Barbadoes. Under date of June 13th, Chief Justice Sewall refers to it, and a little later records that, "Last night Tim Wadsworth's man died of the fever of the fleet, as is supposed, he having been on board and in the hold of some ship. Town is much startled at it."

At regular intervals after this time quarantine laws were passed or modified to meet the needs of the public. A necessary adjunct to such legislation was a hospital, and in 1716 a committee of the General Court was appointed to locate a site for such a building. They reported on two locations, Spectacle Island and Squantum Neck, but the former could not be bought at a fair price, and as a strong protest was made to the latter site from the natives of Dorchester, Braintree and Milton, the project was abandoned. But during the next year a quarantine hospital was built on Spectacle Island, which was used for infectious diseases until 1737, when it was transferred to Rainsford Island, where it remained until 1849. It was then established at Deer Island, and remained here until April, 1867, when it was removed to Gallop's Island, at which place the quarantine buildings for the port of Boston are now located.

In 1649 a law was passed for the regulation, within certain limits, of the practice of medicine and surgery. It afforded, however, only a slight protection against the deficiencies of the profession, since it made no provision for educating medical men, and established no test of their qualifications. It is worthy of notice, however, as being the first attempt on the part of the colonial authorities to restrain the quackery of the time. The tendency of the law was to confine the profession to skilled persons.

The early practitioners of medicine had a fondness for venesection, and the lancet was in constant use. Good Deacon and Dr. Fuller, who lived at Plymouth, wrote to Governor Bradford, June 28, 1630: "I have been at Mattapan, at the request of Mr. Warham, and let some twenty of these people bleed; I had conference with them till I was weary." Such heroic treatment was of common occurrence; even the ministers were wont to bleed and pray in all severe cases.

Then also the barber-surgeons wielded with equal facility the razor and the lancet, as well as used the jaw-breaking key on the aching teeth of their unfortunate friends. The pathetic story of William Dinely has often been told. He was a barber-surgeon, who perished during a severe snow-storm, December 15, 1638, between Boston and Roxbury, whither he was going to pull a tooth. It was many days before his body was found, and his poor widow suffered great anguish. Her grief hastened the coming event which she was anticipating with so much joy, and she named the baby "*Fathergone Dinely*."

I introduce the following paper, found among the Massachusetts archives at the State house, in order to show, in some particulars, the position of medical matters during the early history of the colony. It is a petition to the General Court in the year 1645, by Dr. Thomas Oliver, a practising physician of Boston, who was active both in town and church matters:

"May it please this honored Court to Consider of y^e Paines and Cost: I have bin at in dressing Joseph White of y^e disease called y^e kings evill, wh hath bine vnder my hand vpon, 20, months both for sergery, and physick, y^e disease being in my Judgment hard to be Cured without amputation wh y^e boy would never Consent vnto) yet I know not what y^e lord will do in blessing y^e meanes vsed, for he is in good ease for y^e present and is able to worke for his living and begine to travel vpon his foote.

Y^{rs} in all deuty to be co.

THO. OLIVER.

I would for the time past if it please you demand for my Pains and Cost 12-00-00.

The magistrates judge it reasonable that the Petitioner demand should be granted & desire the concurrence of the Deputies herein.

JO. WINTHROP, D. GO.

(Massachusetts Archives, c. 10)."

There are other petitions of a similar character, and bills for medical attendance made out against the government.

The earliest treatise on a medical subject published in this country was a broadside, twelve inches by seventeen in size, written by the Rev. Thomas Thacher, the first minister of the "Old South Church." It is dated January 21, 1677-78, and was printed and sold by John Foster, of Boston. The title is "A Brief Rule to Guide the Common People of New England How to order themselves and theirs in the Small-Pocks and Measles." It was intended to furnish some popular hints in regard to the management of these diseases, which were then much more prevalent than now. A second edition of this "Brief Rule" was printed in the year 1702.

Dr. Increase Mather wrote a pamphlet entitled "Some Further Account from London of the Small-Pox Inoculated." The second edition, with some remarks on a late scandalous pamphlet entitled, "Inoculation of the Small-Pox as Practiced in Boston, Etc.," 1721. Dr. Mather was also the author of a broadside printed at Boston in 1721, giving "Several Reasons Proving that Inoculating or Transplanting the *Small-Pox* is a Lawful Practice, and that it has been Blessed by God for the Saving of Many a Life."

Small-pox prevailed in 1721 more extensively and fatally than ever in Boston and its vicinity. A statement of results was made by the selectmen in the *Boston News-Letter*, February 24, 1721-2. The number of persons visited with the small-pox since its appearance in April, was reported as five thousand eight hundred and eighty-nine, eight hundred and forty-four of whom died; October recording the exceptional mortality of eight hundred and eleven.

The introduction of variolus inoculation was the most important event in the medical history of the province, and it was a subject of much speculation while the discourses of the clergy applauded or condemned it in a moral or religious view. The controversy of physicians was not more distinguished for candor and fair argument than by a spirit of rivalry and ill-nature. It occurred in the summer of 1721, when there was not a single practitioner of medicine in Boston with the exception of Dr. William Douglass, who was a regularly graduated physician. Dr. Douglass, the leader of the opponents of inoculation, was a Scotchman, and had received his medical education at Paris and Leyden. He was a man of fine intellectual parts, and a versatile writer. He studied his medical cases, and took careful notes by the bedside.

The credit of the introduction of inoculation into this country is generally given to Rev. Cotton Mather, who had read in the "Transactions of the Royal Society" at London that this method had long been practiced in Constantinople. Dr. Mather was impressed with the importance of the method, and tried to interest the Boston doctors on the subject. With one exception, they were either indifferent or opposed to the whole matter. This exception was Dr. Zabdiel Boylston, who took up its practice amid the most violent opposition of his professional brethren. On the 26th of June he inoculated his own son (six years of age), his negro man (thirty-six years old), and a little negro boy of two and a half years. They all had the disease very lightly, which greatly encouraged him; but the medical profession were skeptical and their opposition strong and bitter. At one time the public feeling

was so great that the advocates of the practice were not safe even in their own houses. The town was patrolled by the rabble, with halters in their hands, threatening to hang Dr. Boylston, if they could find him, to the nearest tree. An attempt was made to destroy the house of Cotton Mather, early in the morning of November 14, 1721, who had at that time a kinsman living with him and under his charge for inoculated small-pox. Fortunately, the fuse was shaken out of the shell (fired grenado), and no serious damage done.

Within the period of one year, Dr. Boylston inoculated two hundred and forty-seven persons, of whom only six died; and during the same time thirty-nine other persons were inoculated by other physicians, all of whom recovered. This low mortality rate, as compared with those having taken small-pox in the natural way, was a telling argument in favor of inoculation. The array of these statistics carried the public to the side of Dr. Boylston, who was now honored to the same degree that he had been previously libelled by a fickle populace.

In course of time inoculation conquered all opposition, and finally became a well established practice in the community. Some of its most bitter opponents, notably Dr. Benjamin Franklin, became now its warmest defenders. In the small-pox epidemic of 1752 even Dr. William Douglass both practiced inoculation and spoke of it as a "most beneficial improvement."

During three-quarters of a century the practice was continued until it was superseded by the great discovery of Jenner.

The next excitement in the medical history of Massachusetts was an epidemic that raged in Boston and its neighborhood and produced great consternation. It was described by Dr. Douglass in a pamphlet entitled, "The Practical History of a New Epidemical Eruptive Miliary Fever, with an Angina Ulcusculosa, which prevailed in Boston, New England, in the years 1735 and 1736."

The diagnosis was rather obscure, and the disease baffled the skill of the physicians. "It was vulgarly called the *Throat Illness*, or a *Plague* in the *Throat*, and alarmed the colonies very much. Dr. Thacher, in his account of Douglass in the "American Medical Biography," calls the disease *angina maligna*, which is a generic term, and includes any inflammatory affection of the throat or fauces, such as quinsy, malignant sore-throat, croup, or mumps. There is little doubt that the diagnosis now would be diphtheria.

Nathaniel Williams was born in Boston, August 23, 1675. He graduated at Harvard in the class of 1693, and in the summer of 1698 was ordained in College Hall as an evangelist for one of the West India Islands. But the climate not agreeing with his constitution, he soon returned to his native city. He spent his life as a schoolmaster, a preacher and a physician. In the latter capacity he may be fairly classified, but it only illustrates the position which the medical practitioner held not unfrequently at this period. From 1708 to 1734 he was master of the free grammar school, now known as the Boston Latin School. He studied "Chymistry" and "Phsyick" under his uncle, the learned Dr. James Oliver, of Cambridge, one of the most esteemed physicians in his day, and even while preaching, continued to practice his profession of medicine. His death occurred in 1737. In 1752 there was published in Boston a pamphlet entitled, "The Method of Practice in the Small-pox, with Observations on the Way of Inoculations," taken from a manuscript of the late Dr. Nathaniel Williams, of Boston, "published for the common advantage, more especially of the country towns, who may be visited by that Distemper." At the end, it contains four pages with the heading, "Small-pox by Inoculation in 1730."

Thomas Bullfinch was born in 1694, and began the study of his profession with

Dr. Boylston as his preceptor. Later he went to London and received instruction under the famous Cheselden, subsequently to Paris, where he completed his studies. On his return to Boston he soon acquired an excellent reputation and a large practice. He died in 1757, leaving a son, who also became a successful practitioner.

"The first inoculating hospitals in the neighborhood of Boston, one at Point Shirley and the other at Castle William, now Fort Independence, were opened in the winter of 1764, during another epidemic of small-pox. The Point Shirley Hospital was established by the governor of the province, with the advice of the Council, and placed under the charge of several physicians. A notice in the *Boston Post-Boy and Advertiser*, March 19, 1764, sets forth that :

"Those Physicians of the Town of Boston who are engaged in carrying on the inoculating Hospital at Point Shirley, being prevented giving their constant Attendance there during the continuance of the Small-Pox in Town, hereby notify the Public, that they are joined by Doctor *Barnett*, of *New Jersey*, who will constantly attend at said Hospital with one or other of said Physicians whose Business will permit, and employ the utmost Diligence and Attention for the relief of those that put themselves under their care. They further notify that *Point Shirley* contains as many comfortable Houses as will be sufficient to accommodate as many Persons as will probably ever offer for inoculation at one Time, from this or the neighboring Governments and is well fortified with every requisite Convenience both for Sickness and Health."

Dr. William Barnett lived at Elizabethtown, N. J., and had acquired reputation in Philadelphia as a promoter of variolus inoculation.

The Castle William Hospital was opened February 27, 1764—

"In order to enlarge the Conveniences for Inoculation in addition to those already proposed at Point Shirley, that every Person desirous of undergoing that operation may have an opportunity of doing it, without endangering the spreading the Distemper and that this town may be as soon as possible, freed from the Apprehension of the Small-Pox the Governor, has consented that the Barracks of Castle William shall be improved for the Purpose of inoculation, from this Time into the middle of May next. And the said Barracks are now opened to All Physicians having Patients to Inoculate, under such Rules as shall be thought proper to be made for that purpose. There are in the Barracks 48 Rooms, each of which will contain ten Patients conveniently."

During a period of five weeks after these hospitals were first opened, it is estimated that more than three thousand persons received the disease, and not a fatal case among them.

From the following advertisements it will be seen that the art of dentistry, which may be traced, in the past, into Egypt, where it was practical, as a distinct calling, five thousand years ago, had its beginning, in the colony, at an early period.

"Gentlemen and Ladies that may want Artificial Teeth may have them made and fixed in the neatest manner, without the least pain by Isaac Greenwood, Ivory-Turner, at his house in the Main Street; between the Old South and Seven-Star Lane, at the South-End of Boston; they help the speech, as becoming as the natural ones.

"Ladies, wax rots your Teeth and Gums, throw it away. Come and have your Teeth cleansed, and if done in time, saves them from rotting and parting from the Gums.

"N. B.—Said Greenwood continues to make Artificial Leggs and Hands: Turns in Ivory, Bone, Silver and Wood; makes Fifes, German Flutes, Hautboys, &c., &c.

"Ladies please to send your Umbrellas to be mended and covered."—*The Continental Journal and Weekly Advertiser*, April 20, 1780.

Isaac Greenwood was the father of John Greenwood, a dentist of repute in New York, who made a set of teeth for General Washington about the time Stuart painted

his portrait. These gave an undue fulness to the mouth. At that time false teeth were kept in position either by springs or clasps.

The American Revolution opened a new field for medical investigation, and Dr. Joseph Warren, so conspicuous at the outbreak of hostilities, was proposed for "Physician General," but he preferred a command in active field duty, received a commission as major-general, and at the Bunker Hill engagement sealed his principles with his blood.

Dr. Benjamin Church, an esteemed practitioner, a pupil of Joseph Pynchon, was appointed surgeon-general, but being charged with a treacherous correspondence with the British, and after a court-martial trial, reviewed by Washington, he was discharged from the service, and Dr. John Morgan, professor of medicine in the College of Philadelphia, was appointed in his place.

Dr. Church was expelled from the House of Representatives, and Congress later resolved,

"That he be closely confined in some secure jail in Connecticut without the use of pen, ink, or paper, and that no person be allowed to converse with him except in the presence and hearing of a magistrate, or sheriff of the Court."—(*Thacher Military Journal*, p. 775.)

The following year he and his family were permitted to sail for the West Indies. The vessel foundered at sea, and all were lost.

"The following gentlemen are personally recollected as holding the stations of Physician or Surgeon General or Deputy Director General of the different departments of the army, viz:—Malachi Treat, John Cochran, and Samuel Stringer of New York; Jonathan Potts of Pennsylvania; Robert Johnston and J. Brown, of Maryland or Carolina; James Craik, of Virginia; and Isaac Foster, of Massachusetts; Andrew Cragie, Apothecary General. Those who served as Hospital or Regimental Surgeons, belonging to Massachusetts, during the war, were,—Isaac Foster, Samuel Adams, John Warren, William Eustis, David Townsend, John Homans, John Hart, Joseph Fisk, John Thomas, Abijah Richardson, Daniel Shute, James Thacher."*

During the early part of the Revolutionary War, it was very difficult to organize satisfactorily the medical department of the army. Drs. William Shippen and Benjamin Rush followed Dr. Morgan in occupying the difficult position of surgeon-general. It was not only difficult to obtain a proper supply of instruments, surgical dressings and medicines, but men whose training fitted them for this character of duty were very limited in number.

Military hospitals were established, where wounds were carefully treated and the diseases incident to camp life were studied. This necessarily was productive of much good to the medical profession, and aided materially in bringing about co-operative efforts for the advancement of medical knowledge. This, with the feeling of independence which was in every way stimulated, indirectly brought about the establishment of medical societies and taught the necessity of medical schools in America, where men might be more carefully trained in preparation for the duties of their profession. Prior to the Revolution only a few men had received medical degrees in America. Noteworthy among these may be mentioned Charles Jarvis, John Jeffries and James Lloyd, all of Boston, who had studied in Europe.

Medicine, at this time and for a considerable period later, was usually taught by a system approaching that of apprenticeship. The duties of the medical student consisted at this time in general attendance upon his master, some practising physician with whom he was associated as pupil. More commonly, however, he was an

* History of Medicine in America by James Thacher, M.D.

inmate of the family, and he often served in the varying capacity of stable-boy, house-servant and apprentice. The latter duties demanded the preparation of crude drugs into the form to be administered, powders, pills, potions, etc. He was supposed also to be trained in the preparation of plasters, surgical dressings, extraction of teeth, bleeding and the details of minor surgery. Beside these duties, he "rode with the doctor," which meant that he was to be taken to the bedside and taught the details of treatment of the sick.

The more popular physicians sometimes received several pupils. Cases were discussed between the visits, and oftentimes, which was far more valuable than the disease under question, was the imparting of that character of information, never to be obtained from books, the personal influence and impressing of the spirit of the master upon the student by the close familiar personal touch which is necessarily wanting in the class-room.

In 1781 the Massachusetts Medical Society was incorporated, with full power to examine candidates for admission to the profession and the granting of a certificate of such examination. The bill was signed by John Hancock, the governor, and Dr. Edward S. Holyoke, of Salem, was elected its first president. He was born in Salem in 1728, graduated at Harvard College in the class of 1746, and began the study of medicine under the direction of Dr. Thomas Berry, of Ipswich. His reputation became such that he was consulted by many living at a distance, even as far as New Hampshire and Maine. He continued to practice medicine in Salem for seventy-nine years. He died March 31, 1829.

About fifty physicians of Boston and Salem gave him a public dinner upon the centennial anniversary of his birth, upon which occasion he appropriately answered to the sentiment, "The Massachusetts Medical Society."

Two years after the organization of the Massachusetts Medical Society medical instruction was regularly inaugurated, with the definite purpose of establishing a college or school of medicine. We have referred to an earlier effort made by Mr. Firmin, reading lectures upon an anatomy (skeleton) at Cambridge in 1647.

Dr. John Warren had been a surgeon in charge of a military hospital in Boston, and in the winter of 1780 commenced a series of anatomical dissections which were secretly attended by a few physicians and students.

The school was formally opened in 1783, with three professors, Dr. Warren, professor of anatomy and surgery; Dr. Benjamin Waterhouse, professor of theory and practice of physic; and Dr. Aaron Dexter, professor of chemistry.

The lectures were given at Cambridge under the auspices of Harvard College, and were open to the members of the senior class, as well as medical students. Instruction was continued in Cambridge until the autumn of 1810, when the medical department was removed to Boston in order to obtain larger clinical and surgical opportunities.

The history of the medical school, in its steady growth and progress, is full of interest, and did the limit of this paper permit we would gladly follow it in detail to the present date, where we should find it located in its large, commodious building, at the corner of Boylston and Exeter streets, with an ample corps of instructors, large classes of pupils, pathological and biological laboratories, and utilizing the clinical opportunities of the various large hospitals in the city.

The names of Bigelow, Holmes, Jackson, Shattuck, Warren, and others are indissolubly associated therewith, noteworthy from sire to son, Homans and Warren, through the generations from its beginning down to the present.

The treatment of the sick, who were too poor to be cared for in their own

homes, at this period, was furnished only by the almshouses, under the supervision of the officers of the town. The old almshouse in Boston stood on Park street, where was also a work-house, a granary, and a gaol.

In 1800, a new almshouse was built in Leverett street. In order to afford clinical privileges to the medical students, Drs. Warren and Jackson were given in charge of the poor of the almshouse with the condition that they should attend the sick gratuitously and supply them with medicine.

In 1810, there was a concerted movement for the establishment of a public hospital, and after much discussion, every respectable individual having been solicited, more than one hundred thousand dollars was obtained, a charter having been granted by the legislature, February 25, 1811, with a liberal gift on condition that the above sum should be raised. In addition the state donated the Province House, for many years the home of the governors of Massachusetts. This was sold for fifty thousand dollars, and on the Fourth of July, 1818, the foundation of the Massachusetts General Hospital was appropriately laid under masonic form. The East wing was first erected, then the centre, and later the west wing. Mr. Charles Bullfinch was the architect, whose master-piece is the old State House building on Beacon Hill. The hospital is built of granite, much of the work having been done by the convicts of the state prison in Charlestown. Under the dome was the surgical amphitheater, where half a century ago ether was first used as an anæsthetic, in a public surgical demonstration; a discovery which marked the greatest era in the advancement of surgery since the beginning of civilization.

At present the hospital has greatly outgrown its older quarters, having now two hundred and fifty-nine beds, and has furnished attendance since 1821 to nearly or quite one hundred thousand patients who have been admitted to its wards, and five hundred thousand or more who have received attention as out-patients. A training school for nurses, connected with the hospital, was established in 1873. The graduates from this school now number over five hundred.

The first United States marine hospital was built at Charleston in 1803, and its first physician was Dr. Charles Jarvis.

Boston City Hospital was dedicated in 1864, and has steadily grown in capacity and service until the present. A large number of new buildings are nearing completion, which will give a total of eight hundred and ten beds. The buildings are of most substantial construction, and nothing has been omitted which is considered essential to the welfare of the patients, and it is one of the best equipped and most complete of public hospitals in the country.

John McLean, Esq., of Boston, bequeathed one hundred and twenty thousand dollars (\$120,000) for the establishment of a home for the sick, which was the foundation of the asylum in Somerville, called after his name, which until very recently furnished superior accommodations and treatment for the insane. This has been recently removed to Waverly by the trustees, and is equipped with every modern improvement and offers advantages for the treatment of the insane unsurpassed elsewhere.

Public charity and consideration for the welfare of the unfortunate has one of its best exponents in the extraordinary number of hospitals, both public and private, which exist in Massachusetts. Nearly every town of any considerable importance now has its local hospital, and each serves as a centre for the development of medical thought and interest which is conducive, alike to the good of the poor and the rich.

The criticism is frequently made that the benefactions of the public in this direction have been excessive, and that the undue use of hospital privileges tends, in

a measure, toward pauperizing the public, since in the great commercial centres, nearly one-quarter of the population is thus gratuitously treated.

Few stop to consider the great magnitude of our public beneficent corporations, and the enormous expense attendant annually upon their administration.

The Berkshire Medical College was established in Pittsfield, Mass., in 1832, in connection with Williams College. The corporation was, however, dissolved by an act of legislature in 1868, but during its period of existence of nearly a half century it was much of the time a centre of medical teaching of importance to the state, and many of its graduates became men of marked distinction and repute.

We have already referred to the introduction of inoculation for the prevention of the ravages of small-pox, and emphasized the great importance of this measure to the public welfare.

Dr. Edward Jenner, a celebrated English physician, first established the protective power of vaccination, and for his invaluable discovery, after much opposition, he was ultimately liberally rewarded by the British Parliament and honored throughout the world. In 1800 vaccination was first introduced into America by Dr. Benjamin Waterhouse, of Cambridge. But he was destined to meet with opposition not unlike that bestowed upon his great master, Dr. Jenner.

Dr. Waterhouse published a tract in this year, entitled, "A Prospect of Exterminating the Small-pox; Being the History of the Variola Vaccina or Kine-pox, etc." His first vaccinations were done with quill-points, sent to him directly by Jenner in a snuff-box, which is still preserved as an interesting souvenir. He first vaccinated his own children. In 1802 Dr. Waterhouse published a work of one hundred and thirty-four pages upon the same subject. In these efforts for the introduction of vaccination, he was greatly assisted by Dr. William Aspinwall, of Brookline. This is the more noteworthy since Dr. Aspinwall had abandoned his general practice and expended a large sum of money in the erection of a hospital in Brookline for the treatment of small-pox, and especially for the inoculation, in which latter procedure he was very successful and is supposed to have inoculated more persons than any other man in America.

The town of Milton was the first to inaugurate, under town authorities, the systematic vaccination of her people, and in 1809, three hundred and thirty-seven individuals were vaccinated by Dr. Amos Holbrook. In 1810 New Bedford authorized a general vaccination at the public expense.

The first regular publication in the interests of medicine was the establishment of the *New England Medical Journal* in 1812. It was continued as a quarterly until 1828, when it was published weekly under the name of the *Boston Medical and Surgical Journal*, which is continued to the present.

"Physicians who had much business, in those days (about 1815), rode on horseback. Riding in a chaise was very rare, and in a four-wheeled carriage still more so. My father rode on horseback till within a few years before his death. He rode with great rapidity, and never stopped for anything until he reached his destination. Within a few years of his death, he used a chaise, with a powerful horse, and drove with the utmost possible speed, avoiding with great adroitness all obstacles. He never had any attendant except in the winter, when he indulged in a good booby-hut with a pair of horses driven by a black servant. A succession of these servants he obtained from my grandfather's estate in Rhode Island. The last of these, whose name was Cuff, or Cuff Collins, died about the year 1848, in Rhode Island, at the place of his birth, receiving a pension which made him comfortable in his old age. Dr. Lloyd generally drove a very fine horse, and Drs. Jarvis and Whipple were famous for beautiful saddle-horses, and the elegance with which they rode. The saddle-horses were tied in the streets; but, when in harness, they were accustomed to stand without being tied. The streets in that day were very irregular, being

partly paved, and partly graveled. The sidewalks were paved with round stones, without curb-stones; and the sidewalks were guarded by rows of posts, which were very convenient for the hitching of horses. Ladies were more rarely seen in the street than now, except in the evenings, when they walked to parties attended by their gentleman or by a servant; but, in great balls and assemblies, they endeavored to obtain a hackney-coach, though the number of these was very small.

"There was, at that time, but one market-place in town; and my father was in the habit of going to market, notwithstanding his great business, two or three times a week. But there were provision carts, which carried supplies to every door.

"When business increased and science began to flourish, the attention of our educated people was directed to new objects and time began to be considered important. Physicians set the example in this way. They demanded of each other, that no one should encroach on the time of his professional brother by a want of punctuality. Five minutes was allowed for inevitable impediments; and, beyond that time, no one considered himself bound to waste his time in awaiting his dilatory colleague." *

The Boston University School of Medicine was organized by members of the Homeopathic Medical Society in 1873. It is situated in close proximity to the Homeopathic hospital. The dean of the school is Dr. I. T. Talbot, and, in a large measure, it is owing to his enthusiastic zeal that the school was organized.

The medical profession of Massachusetts bore an honorable record in the service which the state rendered in the late Civil War. As one who shared in the privations and dangers of the long campaigns, I consider it a pleasure to state, that no instance came under my observation, where a medical officer was not ever ready to exercise his best endeavor and professional skill in the succor and relief alike of friend and foe.

When the late Dr. Luther V. Bell, of Somerville, who died in the service, was remanded by his general for attending the confederate wounded before all his own soldiers had been cared for, he indignantly replied, "They were your enemies, but they are now my patients."

The tablet which Harvard has placed (in honor of her heroic dead of the late war, in Memorial Hall, at Cambridge), bears the names of five medical officers killed in the service, and of nine who died from disease contracted in the field from exposure, etc., thus showing that the medical profession gave a full share in sacrifice upon the altar of her country during this most memorable of modern wars.

During the early part of my pupilage I was the student of Dr. George A. Otis, of Springfield, surgeon of the Twenty-seventh Massachusetts Volunteers. He was afterwards commissioned an officer in the regular army, and detailed in charge of the Army Medical Museum at Washington. The monumental volumes, entitled, "The Medical and Surgical History of the Rebellion," is one of the most noteworthy medical contributions of the century.

The Civil War added materially to the advancement of surgery in America, and contributed in large degree to the placing of the medical profession on a par in reputation with that of any of the countries of Europe. The surgical equipment of the continental armies was early reorganized after the model of the United States, and the treatment of wounds of every description became much more cleanly and successful.

The new era of the surgical treatment of wounds, inaugurated by Mr. Lister, recently elected to the peerage, an honor never before conferred by England upon a medical practitioner, in Edinburgh, in 1869 and 1870, became revolutionary, and

* "The Life of John Collins Warren, M.D.," by Edward Warren, M.D., p. 12.

is now accepted throughout the civilized world. In this, good fortune gave me a prominent part, since I had the honor to be Mr. Lister's first American pupil, and returned to America in the summer of 1870, full of enthusiasm for the new teaching, and amply supplied with antiseptic dressings, etc. At once I established a laboratory for bacteriological and histologic study, soon followed by a private hospital for the better demonstration of the antiseptic method of wound treatment. As might naturally have been expected, such revolutionary teaching was met with opposition and much criticism, but the objective lessons of the marvelous results in the speedy and safe repair processes, following antiseptic operations, were absolute demonstration, and, after a time, the new teaching was almost universally accepted, until now, profiting by anæsthesia and antiseptics, the two greatest discoveries of the century, it is safe to assert that surgery has made greater advances in this generation than in the entire period since the Romans.

The progress in sanitation has been scarcely less noteworthy, and in this department the world is indebted to the masterly contributions of the late Dr. Henry I. Bowditch, of Boston. The present State Board of Health in Massachusetts, of which Dr. Bowditch was the founder, is justly considered as a model of its kind. Under the guidance of its distinguished chairman, Dr. Henry P. Wolcott, of Cambridge, and its very efficient secretary, Dr. Samuel Abbott, the State Board of Health is rendering a service to the public of inestimable value.

Dr. Abbott has recently shown me the result of his long statistical studies which demonstrate that the mortality of consumption has steadily lessened through the last three decades at a rate which, if continued, will eradicate the disease in the next half century. The knowledge derived from the study of the ferments in wounds, and the demonstration of their living organisms, has proved one of the most material contributions to science. The profit derived from this in the treatment of disease, is second only to that of its practical importance in surgery.

The laws of infection and contagion are now carefully studied, and the daily conditions of health and disease are more and more comprehended.

Medicine is being re-written, having for the foundation stones of its Æsculapean Temple, surgery and sanitary science, and it is safe to assert that a large class of diseases, which now reap their great harvest of death, are preventable, and that the coming generations will profit still more from the discoveries of the last two decades in the limitation and control, if not the eradication, of many diseases which, only a brief time in the past, were considered as a part of the Providential plan of creation.

The cultivation of medical and surgical specialties, which is becoming so prevalent, is beginning to show its effects in the literature of the profession, which is every year growing richer in original researches and observations. It is easy to note that such contributions to medical science demand each year more and more of its practitioners. Such men must have careful, thorough, preliminary and general training, a special equipment in certain branches of natural science, a careful knowledge of anatomy and modern physiologic research; in a word, a longer period of training than has hitherto been considered necessary, and the public is soon to understand that their relation to the medical profession is one of general custodianship of the entire surroundings, of life itself, and that they are indebted to its members far less for the special attendance required of them at the bedside when sick, than to the systematic, unwearied service which is rendered without fee in the prevention of disease.

To this also should be added the gratuitous services rendered to nearly one-fourth of the entire population in dispensary and hospital attendance, not to make mention of the unwearied daily service, which every physician in private practice cheerfully gives in his round of visitation upon those too poor to compensate him.

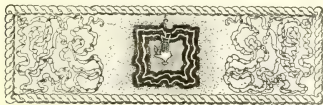
In this broad field of public service Massachusetts has over four thousand men in daily devotion to duty in the care of the body politic, both sick and well, and it is a pleasure to have traced through this article, from small beginnings, the really splendid development of medical science through two centuries and a half of growth and advance. It is an epitome of the great progress which has been made in the civilization of the race; but in its local expression Massachusetts has and always will have just pride.*

* It gives me pleasure to refer to a number of valuable publications, of which I have availed myself in free use, in the preparation of the accompanying paper. Noteworthy of the contributions upon the early history of medicine in Massachusetts must ever be mentioned the monumental work of Dr. James Thacher, a surgeon in the Revolutionary War. He lived in Plymouth, Mass., and published the "American Medical Biography," with a "History of Medical Science in the United States," from the first settlement of the country. This work bears date January 1, 1828, and was dedicated to Dr. Holyoke as the oldest physician in the country, then in his hundredth year.

Josiah Bartlett, of Charlestown, published in 1810 "A Dissertation on the Progress of Medical Science," an historical paper of much originality and value.

In 1869 Dr. Oliver Wendell Holmes published an interesting paper, entitled "The Medical Profession in Massachusetts," which, as all of Dr. Holmes' writings, is charming in style and full of interest.

The life of Dr. John C. Warren, by Dr. Edward Warren was published in 1860, and last but not least, "The History of Medicine in Massachusetts," by Dr. Samuel A. Green, of Boston, given as the Centennial Address before the Massachusetts Medical Society, in 1881. This work is of exceptional value, since Dr. Green, as librarian of the Massachusetts Historical Society, has availed himself of the unrivalled collection of the society, and thus was enabled to give in fuller detail many of the interesting events, particularly of the colonial period.



CHAPTER CXXXIX.

BANKING AND CURRENCY IN MASSACHUSETTS.

BY WILLIAM T. DAVIS.



It is not the intention of the writer to include in this chapter a history of the individual banks in Massachusetts. Those institutions possess, in the main, the same features, differing only in location, capital and managing officers. Their distinctive characteristics are no more marked than those of capitalists and merchants, a description of whose characters would throw no light on the history of manufactures and commerce. So far as banks are concerned the chapter will simply delineate the systems under which, at various times, they have been conducted, and the gradual adaptation of those systems to the varying conditions of the business community. The subject of the currency is inseparably connected with that of banks, and that element of it which is represented by promises to pay expressed on paper is the fruit of the banking system.

In banking and currency the history of Massachusetts, though covering only a period of two hundred and seventy-five years, presents an epitome of the history of the world. In the early days of the Plymouth Colony the colonists were as completely deprived of the advantages of a financial system as the earliest inhabitants of the earth, as the aborigines in their forest homes, or as the African to-day living in the rudest barbarism. It is true that they had use for money but not among themselves. Obtaining loans in England at high rates of interest through agents sent for the purpose, the proceeds were spent abroad in the purchase of hardware, cattle, tools and other supplies, and none in trade between members of the colony. They fished and hunted and raised their own corn, each exchanging of his abundance to supply another's scarcity, and, as a colony, paid their debts in England by shipments of furs, clapboards, sassafras, and other articles.

Under their contract with the merchants of London, who supplied them with transportation and equipment, they were required, at the end of seven years, to divide their lands and other property with them. Such an arrangement, distasteful from the first, became peculiarly so when they saw the development of the territory which they had tilled and enriched and had dotted with their homes and storehouses and barns. Isaac Allerton was sent to England to make a composition with the merchants upon as good terms as he could, but "was enjoined not to conclude absolutely till the colony knew the terms and had an opportunity to consider them." It was finally agreed that the lands and property should be released upon the delivery, by the colony, of "obligations or writings obligatory, to make payment of eighteen hundred pounds of lawfull money of England at the place appointed for the receipts of money on the west side of the Royal Exchange in London by two hundred pounds

yearly on the feast of St. Migchell the first payment to be made Anno 1628.¹ This debt of £1800, together with a further indebtedness of £600 to other parties, was assumed, and promissory notes were given signed by William Bradford, Miles Standish, Isaac Allerton, Edward Winslow, William Brewster, John Howland, John Alden and Thomas Prince, together with James Shirley, John Beauchamp, Richard Andrews and Timothy Hatherly, four of the merchants themselves, who were friendly to the colony. The colony secured the signers of the notes by assigning to them its interest in that part of their patent which granted fifteen miles on each side of the Kennebec river for trading purposes, on which, at a place called Cushinoc, or Kousinoc, now Augusta, a trading-house was erected for a trade with the Indians.

Now for the first time some kind of circulating medium became necessary. For the payment of the notes reliance must be had chiefly on purchases of furs from the Indians, and those purchases could not be made without an acceptable consideration. But the shrewd level-headed business ability of the Pilgrim, a trait of which too little has been said by the historian, was equal to the occasion. It so happened that about that time a Dutchman by the name of DeRasieres, came from New Amsterdam, on a visit to Plymouth and exhibited to the Pilgrims specimens of wampum which he had obtained from the Indians on Long Island, and which were used by them rather for tribute and ornament than for ordinary trade. It consisted of oblong beads a quarter of an inch long made from the purple and white parts of the quawhaug shell, strung on strips of bark or hemp, the purple and white alternating on the string, the purple of double the value of the white, and the whole at that time valued at five shillings per fathom. The New England Indians were not familiar with the article, but the colonists believed that they could make them adopt it as a medium of trade and they bought of the Dutch an amount valued at fifty-pounds. Bradford, in his history of the Plymouth Plantations, in speaking of the business at Kennebec, says:

"But that which turned most to their profit in time was an entrance into the trade of Wampampeake, for they now bought about fifty pounds worth of it of the Dutch, and so it came to pass in time, though at first it stuck, and it was two years before they could put off this small quantity, till the inland people knew of it, and afterwards they could scarce even get enough for them for many years together. And strange it was to see the great alteration it made in a few years among the Indians themselves, for all the Indians of these parts, and the Massachusetts, had none, or very little, of it, but the sachems and some special persons that wore a little of it for ornament: only it was made and kept among the Narragansetts and Pequots, which grew rich and potent by it, and these people were poor and beggarly, and had no use of it. Neither did the English of this plantation, or of any in the land, till now that they had knowledge of it from the Dutch, so much as know what it was, much less that it was a commodity of that worth and value. And it hath now (1649) continued a current commodity about this twenty years, and it may prove a drug in time. In the meantime it makes the Indians of these parts rich, and powerful, and also proud thereby, and fills them with pieces (muskets), powder and shot, which no laws can restrain, by reason of the baseness of sundry unworthy persons, both English, Dutch and French, which may turn to the ruin of many."

The wampum of the Long Island Indians was made of the thick shell of the quawhaug, and consisted of tubes too long to be cut from the thin clam shell of the Massachusetts shores, and consequently the shape was changed to thin button-like pieces with holes in the centre, the method of stringing and value remaining the same. There are to be seen in several places in Plymouth patches of land on sunny slopes where the soil is thickly speckled with fragments of clam shells, and these patches have been generally thought to have been the sites of Indian settlements. The patches, however, about seventy-five feet square, are too small for settlements,

and are not sufficiently numerous to have been the homes of single families. It is at least an interesting hypothesis that they may be the relics of the wampum mints of the Pilgrims.

By the use of wampum furs were bought and sent to England, and with their proceeds a debt was paid by the colony larger per capita than the debt of the United States at the close of the War of the Rebellion. Nor was wampum confined in its use to trade with the Indians. Both the Plymouth and Massachusetts colony General Courts made it by law a legal tender up to a certain amount, and at various times fixed its value. Nor was wampum alone used as a circulating medium. Musket balls, skins, corn, tobacco and other articles came into use, and their passage from hand to hand in exchange for merchandise became so fixed as a custom that it lingered down to a time within the memory of the present generation. Up to 1860 the rent of lands belonging to the first parish in Plymouth was collected in corn. This custom, as long as it was one of necessity, was only a repetition of the earliest times. Cattle were used as money in Greece and Rome, and to such an extent that the word *pecus*, meaning cattle, gave to the word *pecuniary* its origin and birth. But the world's history of money is not within the scope of this chapter, except so far as it is illustrated by its epitome in New England. About the middle of the seventeenth century the trade of the Plymouth and Massachusetts colonies with the West Indies brought in a considerable amount of silver, which gradually changed the currency from wampum and various articles of merchandise to the kind of money used in the commercial world. It was found, however, that the Gresham law was an inexorable one, and that with several forms of currency the most valuable would become an article of export. In order to retain metallic currency in the colonies the General Court of Massachusetts enacted a law in 1652 providing "that from and after the 1st of September next, and no longer, the money hereafter appointed and expressed shall be current money of this Commonwealth and no other, unless English, in pursuance of the intent of this Court herein. Be it further ordered and enacted by the authority of this Court that all persons whatsoever have liberty to bring in unto the mint house at Boston all bullion, plate or Spanish coin, there to be melted and brought to the alloy of sterling silver by John Bull, master of the said mint and his sworn officers, and by him to be coined into twelve penny, six penny, three penny pieces, which shall be for form, flat and square on the sides, and stamped on the one side with N. E. and on the other side with the figures XII, VI and III, according to the value of each piece, together with a privy mark which shall be appointed every three months by the Governor, and known only to him and the sworn officers of the mint." The shilling pieces had a value of two pence less than the English coin, and the smaller pieces a comparative value of the same proportion. Notwithstanding objections were made by the officers of the London mint and others that in coining money the colony had usurped a function which was a royal prerogative the mint continued in operation until the vacation of the Massachusetts charter in 1684.

After the vacation of the charter, Joseph Dudley was appointed president of New England, and during his short administration he saw the urgent necessity existing for some kind of medium which would meet the wants of the people, and at the same time be free from the liability of exportation which was constantly drawing silver from circulation. John Blackwell and others, of Boston, made to Dudley a proposal for the establishment of a bank with authority to issue bills. Dudley answered to this proposal as follows:

"Upon the consideration of the great decay of trade, obstructions to manufactures and commerce in this country, and multiplicity of debts and suits therefor, principally occasioned by the

present scarcity of coin, and for that it is not visible how the same may be remedied unless some other secure medium be approved, than the species of silver which very injuriously have been transported into other parts hence. And for as much as it hath been suggested and may appear to us that the defects aforesaid may be supplied with bank bills or credit given by persons of estate and known integrity and repute which may pass with greater ease and security in all payments twenty shillings or above than moneys coined, and that other countries have found their banks useful to their great flourishing in trade and wealth, and bank credit or bills are of greater value than ready money there; Also that his Majesty's revenues in this country cannot be so well answered by the present species of silver without a great straining impairing and damage to the merchandisery trade and dealings of his Majesty's good subjects in these his territories and domains and having perused and considered a proposal made to us by John Blackwell of Boston Esquire on behalf of his own and divers others his participants, as well in England as in this country liberty is granted for the Directors or conservatives of the Bank to commence the issuing of bills on security of real or personal estate and imperishable merchandise."

Among the acts of Dudley, some of which gave the colonies just cause of complaint, this broad view of the financial condition of the Massachusetts Colony and his efforts to relieve it, should be placed to his credit, and teach us the needed lesson that unpopular heroes of history were often the wisest of men. The bank of Blackwell survived until the accession of William and Mary, which became known in Boston in 1689, and then suffered a premature death. The colony was then left, with its mint closed and the issue of bank bills stopped, in a condition in which for a time it relied on the vanishing medium of silver, and on the revived use of various commodities for the purposes of trade and exchange. In such an emergency, exaggerated by the return of soldiers from the unsuccessful expedition against Canada, who were eager for the payment of wages which there was no money in the treasury to meet, the General Court, on the 10th of December, 1690, passed an act which, as the inauguration of the system of government paper currency, deserves a place in this narrative. The court enacted as follows:

"WHEREAS for the maintaining and depending of their Majesty's interest against the hostile invasions of their French and Indian enemies who have begun and are combined in the prosecution of a bloody war upon the English of their Majesty's colonies and plantations of New England, this Colony hath necessarily contracted sundry considerable debts which this Court taking into consideration and being desirous to prove themselves just and honest in the discharge of the same, and that every person who hath credit with the country for the use of his estate, disbursements or services done for the public may in convenient time receive due and equal satisfaction withal considering the present poverty and calamities of the country, and through scarcity of money, the want of an adequate measure of commerce whereby they are disadvantaged in making present payments as desired yet being willing to settle and adjust the accounts of said debts, and to make payment thereof with what speed they can, a committee are empowered to make an immediate issue of £7000 in bills from 5s. to £5."

As this narrative treats of systems as a whole, rather than of the details of each system, it is unnecessary to specify the various issues of paper money by the colonial government and the fluctuating depreciations of their values. Having once inaugurated the system, there was nothing to be done but to continue it. Its cessation meant bankruptcy. Like *Pickwick's* horse, which could be kept on his legs only by keeping him going, its stoppage would be disaster and death. It was evident that only a miracle or some unexpected blessing could relieve the colony from its growing distress. In 1747 the paper currency of the colony amounted to nearly two million pounds, and at that date the unexpected blessing came. The Lords of the Treasury, in their report of the expenses of the North American colonies in the expedition against Cape Breton, stated that the proportion of Massachusetts was £261,700 in

the new tenor bills, which amount, reckoned at one hundred and forty-two per cent. for exchange, would leave £183,000 due to the colony. Professor Sumner states that the amount due was £138,649. The General Court, on the 20th of January, 1748, passed an act to redeem the public notes with the amount received from the royal exchequer. The act provided for an exchange of these notes or bills of credit before April 1, 1750, at the following rates: one piece of eight or a dollar for forty-five shillings in old tenor, one piece or a dollar for eleven shillings and three pence of middle and new tenor, and in the same proportion for other sums. In September, 1750, the money reached Boston, consisting of 654,000 ounces of silver and ten tons of copper. The commissioners appointed to make the exchange reported June 3, 1751, that they had redeemed £1,792,236 5s. 1d. For some time afterwards straggling bills were offered for redemption and paid, so that the above amount, plus bills burned or lost, represented the entire outstanding issue.

The new tenor bills above referred to were simply a new issue of paper money made in 1737, calculated to rate at one for three of old tenor or old issues. In 1741 a new set of bills was issued to circulate at the rate of 6s. 8d. per ounce of silver, and these now becoming the new tenor the issue of 1737 was called the middle tenor. If the new tenor bills depreciated they were to pass at current rates, and the depreciation was to be ascertained and published by commissioners. In 1741 the old tenor was at 29s. per ounce, and the new 9s. 8d.

In the meantime the issues of paper money having been restricted by parliament to such as might be necessary to meet government expenses, the demands of the people for more money led to several schemes for the purpose of furnishing it. The merchants of Boston issued £110,000 redeemable in silver at 19s. per ounce, one-tenth of the issue to be redeemed annually. In 1739 the land bank was proposed, a company to be composed of land-owners, who mortgaged to it their estates in consideration of its notes, which were payable after twenty years in manufactures of the province. A bank called the specie bank was also proposed, which was to issue £120,000 in notes, redeemable in fifteen years in silver at 20s. per ounce. Both of these banks went into operation, but in 1740 parliament declared them illegal, and they were obliged to wind up their affairs.

After the redemption of paper money in 1751 it became necessary for Massachusetts to protect itself against the circulation of bills of the other colonies. It was stated by the governor of Massachusetts in 1744 that of the £400,000 Rhode Island bills in circulation £380,000 were in Massachusetts. In 1749 the issue of that province had increased to £550,000 and at that date the issue of Connecticut amounted to £281,000 and New Hampshire to £450,000. The taking or passing the notes of either of these colonies was forbidden and a penalty imposed for a violation of the law.

In 1774, Massachusetts was out of debt, but her sister colonies were not so fortunate. The troubles experienced by them all in common at the outset of the Revolution united the colonies in such friendly bonds that one of the first acts of the Massachusetts Committee of Safety in defiance of royal authority was to pass a resolve that "whereas many of our brethren of the colonies of Connecticut and Rhode Island are now with us to assist us in this day of public and general distress, in which we are deeply concerned, and whereas our brethren of said colonies have brought with them some of the paper currencies of their respective colonies which have not of late had a currency with us, and for want of which our common interests may greatly suffer; resolved that said paper currencies shall, and after the date hereof be paid and received within this colony in all payments to all intents and purposes in the same

proportion to silver, as the same are paid and received within the respective colonies by which the same have been issued." But Massachusetts was not long without bills of her own again in circulation. To meet the expenses of the war her Provincial Congress authorized her treasurer to borrow £100,000 secured by notes of the province at six per cent. to be received in all payments in the colony and no discount or abatement was to be made thereon in any payment trade or exchange whatsoever. At the same time the Continental Congress having no power to tax began to issue bills. When Congress had issued bills amounting to \$9,000,000 and the circulation had become further congested by the issues of the several colonies depreciation began notwithstanding the order of Congress that whoever refused to take its notes without discount should be deemed an enemy to his country and the resolve of the Massachusetts Committee of Safety that the Massachusetts notes "were a legal tender in all pecuniary transactions as equivalent to specie at the usual rates under penalty of treble damages to both the payer and receiver." In 1779 Congress was without money, but earlier than that, in 1776, Massachusetts so seriously experienced the difficulty of raising money that joining with her sister New England colonies in convention at Providence a resolution was passed with her declaring that "whoever pays or receives the colonial or continental currency at a less rate than originally prescribed, besides being accounted a foe to the liberties of his country, shall forfeit the sum so exchanged."

Congress promised to limit its issue to \$200,000,000; and though \$350,000,000 had been put out, it is probable that the promise was kept so far as the amount at one time in circulation was concerned. In 1780 the bills were worth two cents on the dollar, and soon ceased to circulate. On the 31st of December, 1781, the Bank of North America was chartered by Congress with a capital of \$400,000, and became an important factor in putting the finances of the colonies in an improved condition. It was conceived in a union of citizens of Philadelphia to supply the army with rations. It was permitted to issue notes to purchase the articles, and Congress ordered bills drawn on American ministers abroad to be deposited in the bank as a guarantee of payment. The sum of \$70,000 in specie was subscribed in 1782, and the remainder of the capital by the government out of the proceeds of a foreign loan. The charter provided that the notes of the bank payable on demand should be receivable for duties and taxes in every state and from the respective states by the treasury of the United States. The bank was also incorporated by the state of Pennsylvania, April 18, 1782; and after its charter from Congress was repealed in 1785, it continued business in Philadelphia under its state charter, and is still prosperous as a national bank. The Legislature of Massachusetts chartered a branch of the Bank of North America in 1782, agreeing that no other similar institution should be chartered within the state during the war. With the repeal by Congress in 1785 of the charter of the Bank of North America, its branch in Massachusetts went out of existence.

On the 7th of February, 1784, the Massachusetts Bank of Boston was chartered by the Massachusetts legislature, and is still doing business under its charter as a national bank, issued in 1865. As the first bank in the United States after the peace, and as the first bank authorized by the legislature of Massachusetts, it deserves something more than a casual mention in this narrative. Its capital named in the charter was \$300,000 in shares of \$500 each, to be paid in gold or silver. It was permitted to hold real estate to the amount of £50,000, and "monies, goods, chattels and effects to the amount of five hundred pounds and no more." James Bowdoin was chosen president and Edward Payne cashier. The location of the bank was on Tremont street, at the corner of Hamilton Place, and the property bought by the

bank for \$4,000, is said to be worth now \$5,000,000. In the chapter on the Banking Institutions of Boston, in the "Professional and Industrial History of Suffolk County," of which Osborne Howes, Jr., and Moses Williams were the joint authors, it is stated that

"the rate of discount was one-half of one per cent. per month and no discounts were to be made for a longer period than sixty days upon merchandise bullion or other securities as collateral, nor for more than thirty days on personal obligations with two securities. No loan was to be made for a smaller sum than one hundred dollars, nor for a larger sum than three thousand dollars to any person at the same time, nor beyond \$5,000 to any one borrower in the aggregate, nor beyond seven thousand dollars to any one person as promisor and endorser. No person was allowed to renew his note on any terms. The bank issued notes the denominations of \$1 50, \$2 50, \$3 50, \$4 50, and \$6, \$7, \$8, \$9, \$15, \$25, \$30, \$35& \$40. In 1792 it was prohibited by law from issuing notes of a less denomination than \$5, and the total amount of its notes together with its loan was limited to twice the amount of its paid up capital. The capital of the Bank was reduced in 1786 to \$100,000, increased in June 1792 to \$200,000, in July 1792 to \$400,000 in June 1807 to \$800,000 in June 1810 to \$1,600,000 and in April 1821 reduced to its present amount of \$800,000."

At the time of the close of the war the state of Massachusetts entered on the work of minting its own money, and works for the purpose were erected in Boston and Dedham. The Federal Constitution, however, adopted in 1788, provided that no state "shall coin money, emit bills of credit or make anything but gold or silver coin a tender in payment of debts." In obedience to the Constitution, the work of coining money in Massachusetts was stopped, and whatever might be the demand for paper money, the state could no longer emit its own bills of credit or notes. No sooner was the Constitution adopted than a discussion arose whether a state can authorize its chartered banks to do what it cannot do itself, and whether the National Government can do what the Constitution forbids the states to do. In answer to the first question it has been held and understood that bills of credit did not cover bank notes. In regard to the second, it was the general opinion until the decision of the legal tender cases by the Supreme Court that Gallatin was right in claiming that "Congress cannot authorize the payment in any specie of paper currency of any other debts but those due to the United States." Notwithstanding the opinion of the Supreme Court, there is still a pervading feeling in the community that the position of Gallatin was correct and that feeling is accompanied by the belief that the opinion of the court was strained to meet exigencies, the result of the war, and that it can only be defended on the ground of *silent leges inter bellum*.

The first bank of the United States was organized in February, 1791. No history of banking in Massachusetts would be complete without a sketch of the career of that institution. The formation of this bank was suggested by Hamilton, and at first met an obstinate opposition. Its capital was fixed at \$10,000,000, divided into twenty-five thousand shares of \$400 each, and it was incorporated under the name of "The President Directors and Company of the Bank of the United States," to continue until March 4, 1811. The suggestion of Hamilton was made in a report to the House of Representatives, advising measures to establish the public credit. Among the advantages of such a bank he mentioned the augmentation of the active or productive capital of the country. He claimed that gold and silver, where they are employed merely as the instruments of exchange and alienation, were dead stock, but when deposited in banks, and made the basis of a paper circulation, which takes their character and place as the signs and representatives of value, they acquire life, or an active and productive quality. Another advantage, he said, would be the greater facility

with which the government could, in sudden emergencies, obtain pecuniary aid. The reason of this, obvious enough, was that the capitals of many individuals are massed and placed under one direction, and are always ready to be put in motion to render aid. The facilitating of the payment of taxes was a third advantage. These advantages he elaborated and explained in a manner which carried conviction. He then enumerated and answered objections to the scheme, to wit.: that banks serve to increase usury, that they tend to prevent other kinds of lending, that they furnish temptations to overtrading, that they afford aid to ignorant adventurers, that they give to bankrupt and fraudulent traders a fictitious credit, and that they have a tendency to banish gold and silver from the country. These objections time and experience have satisfactorily answered without a repetition of the arguments of Hamilton.

The most effective argument against the bank plan was that it was unconstitutional. It was claimed, by the minority in Congress, that the power of creating a bank or any corporate body whatever, not having been expressly delegated to Congress, it did not possess. Washington's Cabinet was divided on the question as it was made up by the President of members of both parties. Thomas Jefferson, the Secretary of State, argued that though the constitution granted to Congress power to pass such laws as were necessary to carry the specified powers into effect, yet this clause could only be considered as applicable to acts in justification, of which there could be pleaded an absolute, paramount and irresistible necessity, not to those which, like the proposed bank, would only rest on grounds of expediency, superior convenience and general usefulness.

Washington sided with Hamilton and approved the charter. The capital was payable one-fourth in gold and silver, and three-fourths in public securities bearing an interest of six per cent. The bank was restricted from contracting debts beyond the amount of its capital, and from holding property exceeding \$15,000,000, or real estate more than necessary for the transaction of its business. The charter provided that if the bank should loan to the government of the United States money exceeding \$100,000, or to any state exceeding \$50,000, or to any foreign prince or state, all persons concerned in such loans should forfeit a sum three times the value of said loan, one-fifth to the informer and four-fifths to the United States. Bills or notes of the bank payable in coin were to be taken in payments to the United States. The charter further provided that within eighteen months from April 1, 1791, the President might cause a subscription to be made to the stock on behalf of the United States. The bank was established in Philadelphia, and went into operation with a large portion of its stock in the hands of foreign holders. Under the terms of the charter which Congress refused to renew, the bank ceased operations March 4, 1811, and was gradually wound up. During the twenty years of its existence it had paid dividends amounting to \$16,666,666, equal to an average annual dividend of eight and one-third per cent.

But the plan of the United States Bank was not abandoned, and the embarrassments of the government occasioned by the War of 1812 furnished the occasion for its revival. During the war the government had received important aid from the banks. The State Bank of Boston loaned the government in May, 1812, \$500,000, and at various times other sums amounting in the aggregate including that loan to the sum of \$4,600,000. In 1814 all the banks in the country, except those in New England, suspended specie payment, and the national finances became so disturbed that Alexander J. Dallas, the secretary of the treasury, strongly urged upon Congress the re-establishment of a national bank. Nothing, however, was done until January

20, 1815, when a bill was passed which was vetoed by President Madison. On the 3d of April, 1816, another bill was passed and approved by the president. Its corporate title was the same as that of the old bank, and it was incorporated with a capital of \$35,000,000, of three hundred and fifty thousand shares of \$100 each. Stock amounting to \$7,000,000 was to be subscribed for by the United States, and the charter was to extend to March 3, 1836. It was prohibited from loaning to the United States more than \$500,000, or to any state more than \$50,000, or to any foreign prince or power any sum whatever. The bank went into operation in Philadelphia, January 7, 1817, and through its influence and agency the banks of the country resumed specie payment. In 1818 an unsuccessful attempt was made to repeal the charter. On the 4th of July, 1832, a bill was passed rechartering the bank and vetoed by President Jackson. On the 3d of March, 1836, it ceased to exist as a national bank by reason of the expiration of its charter, but in the same year was rechartered by the state of Pennsylvania and became a state institution.

Of the first United States bank branches were established at Boston, New York, Baltimore, Washington, Norfolk, Charleston, Savannah and New Orleans. The branch in Boston was established in 1792 and was called the "Boston Branch of the United States Bank for Discount and Deposit." Its officers were Thomas Russell, president, and Joseph Barrell, John Codman, Caleb Davis, Christopher Gore, John Coffin Jones, John Lowell, Theodore Lyman, Jonathan Mason, Jr., Joseph Russell, Jr., David Sears, Israel Thorndike and William Wetmore, directors. The officers employed by the bank were Peter Roe Dalton, cashier; John Rice, teller; Christopher Minot, second teller; Samuel Cabot, accountant; Turner Phillips, second accountant; Daniel Oliver, discount clerk; and Henry P. Sweetser, messenger.

The first bank incorporated by the Massachusetts Legislature after the Massachusetts Bank was the Union Bank of Boston whose charter bore date June 22, 1792. The Essex of Salem was incorporated in 1799, the Boston of Boston, the Northampton of Northampton and the Plymouth of Plymouth in 1803, the State of Boston and Merchants of Salem in 1811, the Bedford of New Bedford, the Newburyport of Newburyport, the Worcester of Worcester, the Beverly of Beverly, the Gloucester of Gloucester, the Salem of Salem, the Taunton of Taunton, the Manufacturers' and Mechanics' of Boston, the Marblehead of Marblehead, the Phoenix and Pacific of Nantucket, the Union of Boston in 1812; the Hampshire of Springfield in 1813; the Dedham of Dedham, the Lynn Mechanics of Lynn, the Springfield of Springfield, the Pawtucket of Pawtucket, the Tremont of Boston and the Merrimack of Haverhill in 1814; the Bedford Commercial of New Bedford in 1816; the Suffolk of Boston in 1818; the Commercial of Salem in 1819; the Falmouth of Falmouth in 1821; the City, Columbian and Eagle of Boston, Franklin of Greenfield and Middlesex of Concord in 1822. It is unnecessary to go further with an enumeration of the early banks in the state of Massachusetts. The above cover the period when Boston was the money market of the country. The period of the establishment of the second National Bank was one of great inflation, and this inflation was stimulated rather than checked by the United States Bank. At a time when the country was on the point of resuming payment the bank directors voted to issue post notes at sixty days for loans granted. Its notes being redeemable at any branch were used for remittances. Notes of the Baltimore branch were advertised for sale, and the Boston and New York branches were kept active in redeeming the Baltimore notes. Boston was the creditor city, and Baltimore represented the debtor middle states. Thus the middle state debts were paid in Boston by Baltimore branch notes and the parent bank was continually sending to Boston fresh supplies of silver to aid in their redemption.

During a year and a half the parent bank sent to Boston and New York specie amounting to \$7,915,992.

Up to and inclusive of the year 1812 so many banks had been chartered in Massachusetts that the legislature made an effort to reduce the number by refusing to renew the charters expiring in that year. New banks, however, continued to be chartered, but not as freely as before. In that year the banking capital of the state amounted to about ten millions of dollars of which about a million was owned by the state. Investment in bank stocks was at that time considered conservative and prudent, but not exactly of that description in which the commonwealth should engage. In more recent times the legislature, the guardian of the interests of depositors in savings banks, has looked on bank stock as the safest investment for these institutions. It has been left for a modern school of financiers to look with distrust on bank stocks and to complain of the banking capital of Boston as disproportionate to the business wants of the community.

A cursory glance at the history of finance in the metropolitan city of New England is sufficient to show that since 1812 there never has been a period when its banking capital was not more than it is to-day, in proportion to its population and wants in seasons of prosperity. In 1820, with a population of not exceeding forty thousand, its banking capital was about thirteen millions. In 1837 its population was ninety thousand, and the banking capital \$21,000,000. Its banking capital to-day is about \$52,000,000, with a population of nearly five hundred thousand, which would require, in comparison with 1820, a capital of \$150,000,000, or, in comparison with 1837, about \$100,000,000. To talk about reducing the banking capital of Boston is to talk of stagnation or reaction in the condition of the city, when in reality its growth is at present, and promises to be in the future, more rapid than at any time in its history.

In the long run there can be nothing safer than bank stocks, and for three-quarters of a century that has been the opinion of trustees, guardians and savings banks themselves. With shrewd, prudent managers, and supervised by experts appointed by government for the purpose, they inflict little loss on investors. The managers of some of the savings banks seem anxious to reduce their bank holdings. They are afraid to sell lest large sales may depreciate the stock, and their expressed distrust alone depresses the stock on the market to points much below its value. They therefore suggest the expedient of winding up a certain number of banks in order that they may receive the full value of the stocks on the books of the banks. Their plea is that there is too much bank capital, but it is morally certain that in the place of every old bank wound up a new one would be organized. But what investments would they substitute for those in bank shares? It certainly cannot be profitable to substitute 4 and 3½ per cent. state, city and town notes and bonds, which, with a revival of business and a higher money market, will be sure to depreciate below their cost. Besides the time is not far distant when the extravagant expenditures which cities and towns have been induced to make by the facilities for negotiating loans will be checked by legislative action, and the amount of their possible indebtedness be reduced by law.

The first attempt to keep the circulation of the country banks of Massachusetts up to its par value followed by any degree of success was made by the New England Bank of Boston, after its incorporation in 1813. The bills of these country banks were suffering a discount of from three to five per cent., except within their immediate neighborhood. The consequence was, that their circulation, restricted largely to the vicinage, furnished little profit to the banks. The effort of the New England

Bank was of a two-fold beneficent character to prevent loss to the holder of foreign bills, as they were called, and by preventing this loss to enable the banks to secure a wider and more profitable circulation. Its plan was to collect and redeem foreign bills at its counter and send them home to the various banks receiving in exchange the foreign bills which those banks had received in the regular order of business. The cost of the exchanges was the only charge, and the result was, as expected, a rapid reduction of the discount on country notes. It is stated by Professor William Graham Sumner, the author of a history of "Banking in all the Leading Nations," published in 1896, that the New England Bank, in January, 1814, sent New York Bank notes home for redemption to the amount of \$138,874, and that the silver received in exchange, filling three wagons, was seized on its way by the order of the collector of New York and deposited in the vaults of the Manhattan Bank, of which he was a director. Though assigning as a reason for his act his suspicion that Canada was the destination of the specie, it was believed in Boston that it was done in revenge for the method pursued by the Boston Bank of gathering and returning to the banks of their issue in New York as many as possible of their bills with which Massachusetts was flooded and demanding specie for their redemption.

The branch of the Second United States Bank in Boston, was established in 1817. Its officers were: William Gray, president; and Tristram Barnard, Amos Binney, George Blake, H. A. S. Dearborn, Gardner Greene, John Parker, Thomas H. Perkins, Jesse Putnam, Nathaniel Silsbee, Barney Smith, Israel Thorndike and Arnold Welles, directors. The officers employed by the banks were: Samuel Frothingham, cashier; Charles Harris, discount clerk; John Tucker, first book-keeper; Thomas English, second bookkeeper; William Coffin, Jr., paying teller; Thomas Willey, receiving teller; John Chadwick, collection clerk; W. L. Cazeau, manager; O. W. Champney, interest clerk; and William Osborn, porter. The other officers were: John J. Loring, John Fillebrown, Jr., John S. Lilley, and James Green, managers of the loan office department; Stephen Codman, notary public; and George Blake, solicitor.

The Suffolk Bank of Boston, was incorporated in 1818. As this bank played an important part in the bank system of New England, it deserves something more in this narrative than a mere reference to the date of its organization. Its charter bore date February 10, 1818, and its first directors were: Ebenezer Breed, Andrew Ritchie, Thomas Motley, Samuel Hubbard, John W. Boott, George Bond, Daniel P. Parker, William Lawrence, Eliphalet Williams, Edmund Munroe, Patrick T. Jackson and Ebenezer Francis.

Among its other shareholders were Abbot and Amos Lawrence, Charles Lowell, William Prescott, Caleb Loring, Nathaniel P. Russell, and Gardiner Greene. These men well represented the large capitalists and solid men of Boston. The bank was largely engaged until 1826 in foreign exchange, but in that year wound up its London connections and devoted itself to the system of redeeming country bank notes which it began soon after its organization. In February, 1819, a committee composed of Ebenezer Francis, the president, Ebenezer Breed and Nathaniel Appleton reported, "that it is expedient to receive at the Suffolk Bank the several kinds of foreign money which are now received at the New England Bank and at the same rates; and that if any bank will deposit with the Suffolk Bank \$5,000 as a permanent fund with such further sums as shall be sufficient from time to time to redeem its bills taken by this bank, such bank will have the privilege of receiving its own bills at the same discount at which they were purchased." The report of the committee was accepted, and at once a competition was entered into with the New England

Bank, and the result was a large reduction in the discount on foreign bills. It must be remembered in this connection that foreign money meant merely bills of banks outside of Boston. It is stated by Messrs. Howes and Williams to whom reference has already been made that at that time Boston was flooded with country money and that though Boston had more than one-half of the banking capital of New England, the Boston banks supplied only one twenty-fifth of the bills in use.

The system of redemption went on at the counters of the New England and Suffolk banks in competition until 1824, when at a meeting of the representatives of the Massachusetts, Union, State, Manufacturers' and Merchants', Eagle, and Suffolk Banks, it was voted to subscribe the sum of \$300,000, the same to be placed at the disposal of one or more banks for the purpose of sending home the bills of the New England Banks. The Suffolk Bank subscribed \$60,000, the State and Massachusetts banks \$50,000 each, the Union and Manufacturers' and Merchants' \$40,000 each, the Columbian and Eagle \$30,000 each, and the Suffolk Bank was chosen as the agent of the association. Under this arrangement the Suffolk Bank began operations May 24, 1824, and that date marked the birth of what has been known as the Suffolk Bank system. The country banks of Massachusetts after 1840 paid over their counters only their own bills. All foreign bills received were sent to the Suffolk Bank and credited to their account and their own bills received at the Suffolk were sent to them in return. There was no regular time for the transmission of these bills, but they were sent as often as sufficient amounts were collected or as often as opportunity offered. In 1834 the daily redemption had increased to \$400,000, in 1850 to \$750,000, and in 1857 to more than a million. For many years during the operation of the Suffolk system there were no expresses and the transportation of packages was made either through stage drivers or some officer or friend who happened to be going to Boston.

The methods of transmission were not always the most prudent, as the writer well remembers. It was his good fortune when a youth at school in Plymouth, his native town, to frequently spend his vacation with relatives in Boston, and more than once after the stage had taken up its passengers, and was standing in front of the stage office before starting on its trip, the president of the old Plymouth Bank gave him packages of foreign money directed to the Suffolk, and asked him to give them to an uncle in Boston, who would keep them over night at his home and the next day deliver them to the bank. After the establishment of expresses the exchanges were more regular and business like, and the deliveries were acknowledged by receipts. While the writer recalls no loss of any package passing to or from the many banks of New England, he remembers a controversy between one of the Newburyport banks and the Suffolk Bank concerning a package of bills which was claimed to have been sent, and as positively claimed to have not been received. The package, containing either \$5,000 or \$10,000, was sent by the Newburyport Bank to the Suffolk Bank by the driver of the Newburyport stage. At the end of the month the former found no credit for the amount on its account, and in explanation the latter denied having received it. The stage driver asserted that he delivered it, but could show no receipt. A suit was brought, but during its pendency, which continued many months, while a spring cleaning was going on in the Suffolk Bank, the package was found where it had slipped down between a desk and the wall. The Suffolk system continued in operation until the organization of the Bank of Mutual Redemption in 1858, to which reference will be hereafter made.

The financial panic of 1837 marked a period more disastrous to Massachusetts banks than any which either preceded it or has followed it. Banks had within a few

years largely multiplied. Between 1831 and 1833 forty-five banks were chartered in Massachusetts, and during the winter of 1835 and 1836 thirty-two more. From 1830 to 1837 the number of banks in New England had increased from one hundred and sixty-nine to three hundred and twenty-one. Many of these banks went into operation with little real capital. The country was flooded with their bills, the most extravagant speculations were going on, and specie was becoming scarce. In 1836 the legislature passed an act, which was repealed in 1838, permitting banks to issue post-notes. In July, 1836, the Secretary of the Treasury issued what has been known as the "Specie Circular," ordering receivers of public lands to accept nothing in payment but gold and silver or, in proper cases, Virginia "Scrip." The purpose of the circular was to check the expansion of bank circulation. Congress passed an act to counteract the circular, but President Jackson put it in his pocket on the last day of his administration, and it failed to become a law. On the first of June, 1836, eighty state banks, with a capital of about \$46,000,000, held about \$41,000,000 of government deposits, with \$72,000,000 of loans, \$37,000,000 of domestic exchange, \$27,000,000 of circulation, \$16,000,000 of private deposits and \$10,000,000 of specie. In the same year an act was passed to distribute the net proceeds of public lands among the states.

It is unnecessary, and perhaps impossible, to trace the crisis of 1837 to any definite cause or combination of causes. The demands on the state bank for government deposits to make the distribution, as well as the "Specie Circular," had their effect. It may, perhaps, be true that prosperity leads to speculation; that speculation leads to over-trading; which, as soon as realized, leads to sudden restriction; and that sudden restriction inevitably causes panic and confusion, until the balance-wheel of the law of supply and demand once more regulates the machinery of trade. It is useless to attribute the panic of 1837, as was done at a public meeting in New York, to presidential meddling with the currency, to the destruction of the National bank, to the attempt to substitute a metallic currency, and to the "Specie Circular."

In every crisis there are always politicians and statesmen ready to declare the policy of the opposing party the disturbing cause and to advertise their own as the only panacea for all national ills. On the 10th of May, 1837, the banks of New York suspended specie payments, and on the 12th the banks of Boston followed suit. In 1837 and 1838 thirteen banks in Boston either failed or had their charters revoked. At that time the banking capital of Massachusetts was about \$38,000,000. Its amount at different periods is stated in one of the reports of the bank commissioners to have been in round numbers \$2,000,000 in 1803, \$11,000,000 in 1816, \$10,000,000 in 1820, \$20,000,000, in 1829, and \$38,000,000 in 1837.

The Bank of Mutual Redemption organized for the special purpose of redeeming foreign money, put an end to the Suffolk Bank system. That bank was incorporated in 1855 with an authorized capital of \$3,000,000, to which the banks of Massachusetts were to subscribe one-half, and the other New England banks the other half, no bank subscribing more than five per cent. of its capital. Its corporators were Andrew T. Hall, Benjamin E. Bates, George W. Thayer, Pliny E. Kingman, George F. Williams, and Wesley P. Balch, Jr., of Boston; Alexander De Witt, of Oxford; Franklin Ripley, of Greenfield; Ezekiel R. Colt, of Pittsfield; John A. Buttrick, of Lowell; Life Baldwin, of Brighton; Francis H. Dewey and Eli Thayer, of Worcester; Roger S. Moore, of Springfield; Ebenezer Torrey, of Pittsburg, and J. B. Congdon, of New Bedford. The bank was not authorized to issue bills of less denomination than ten dollars, and its circulation was restricted to one-half of its capital stock. It was also forbidden to receive the bills of any bank at a discount

from their par value. The stock was only to be transferable to banks. In 1856 its charter was amended by permitting the issue of bills above the denomination of five dollars, by providing that no individual should at any time be a debtor to the bank to an amount exceeding \$60,000, and by providing that its circulation should never exceed for more than three consecutive days three times the amount of specie held by the bank. In 1857 the charter was further amended by permitting the bank to do business whenever \$500,000 should have been subscribed to the capital stock. In 1859 the charter was still further amended by providing that the stock held in the bank should be held to be pledged to the bank to secure any indebtedness of the stockholders' bank, including the bills of the bank so indebted.

The bank went into operation in 1858 with a capital of \$561,700, and the following directors: James G. Carney, of Lowell; Franklin Nichols, of Norwich, Conn.; Almon D. Hodges, of Boston; Stephen N. Nason, of Woonsocket, R. I.; Charles Francis Adams, of Quincy; Ezra Farnsworth, of Boston; Francis H. Dewey, of Worcester; Jacob H. Loud, of Plymouth; George W. Thayer, of Boston; Chester W. Chapin, of Springfield; and Adam W. Thaxter, of Boston. James G. Carney was made president, and Henry P. Shed cashier. Notwithstanding some opposition on the part of the Boston banks, the bank was successfully launched, and in November, 1858, the Suffolk Bank discontinued its redemption of foreign money. About one-half of the New England banks were stockholders of the bank in the first year of its operation, and the redemption business was successfully carried on until the national banking act went into operation.

In the meantime the crisis of 1857 occurred. On the 24th of August in that year the Ohio Life and Trust Company failed with liabilities amounting to \$7,000,000. The credit of this institution had stood high, and its prostration was a severe shock to credits everywhere. About the middle of September the banks of Philadelphia, Washington and Baltimore suspended specie payment. On the 13th of October the New York banks, with one exception, suspended, and in a few days the Boston banks. The latter, however, met the blast in good condition, and with sails well trimmed, and no failures occurred. The New York and Boston banks resumed in December, after a suspension of about two months. As in 1837, the panic was attributed to various causes, according to the political prejudices or financial theories of those who sought for them. But, as before, it is probable that over-trading, over-importations, stock speculation, and general extravagances brought about that reaction which must always follow in their wake.

But now came the war. Congress provided for the issue of \$50,000,000 of demand notes, for \$250,000,000 of seven and three-tenths treasury notes to run three years, and for a six per cent. loan of \$250,000,000 to fund the treasury notes. In the autumn of 1861 the government borrowed of the banks \$100,000,000 in gold in two instalments, and \$50,000,000 more in its own paper. In December, 1861, gold began to be exported, and the drain on the banks became serious. In the latter part of that month all the banks suspended. During the winter gold rose to a premium of two per cent. At that time there were \$150,000,000 of bills of northern banks in circulation, and with these irredeemable bills afloat and gold at a premium hoarding began, and a still further premium was the result. Government, in its inability to borrow more gold of the banks, saw the necessity for the Legal Tender Act, which was passed in February, 1862, and was signed by the president on the 25th of that month. The legal tender notes began to be issued in April, 1862, and before the last of June the premium on gold was seven per cent. In August, 1862, there was no specie in circulation, and about that time an act was passed by Congress providing

for the issue of fractional currency. In March, 1863, another act was passed, providing for the issue of \$50,000,000 of that kind of currency, not to be a legal tender. On the 23d of March, 1863, Congress passed an act authorizing the secretary of the treasury to borrow \$900,000,000 in what were called ten-forty bonds at not more than six per cent., or \$400,000,000 of it in treasury notes at not over six per cent. legal tender, redeemable in paper in three years, or \$150,000,000 of it by issuing legal tender notes. Gold had then reached a premium of forty or fifty per cent. Various expedients were adopted to obtain money to carry on the war, but that connected with the national banking system alone has a place in this narrative. The National Banking Act had a double purpose—the establishment of a uniform bank currency and the raising of money by a forced sale of government bonds. The act was signed June 3, 1864, and was entitled “An Act to provide a national currency secured by a pledge of United States bonds, and to provide for the circulation and redemption thereof.”

The writer has reason to believe that Hon. Orlando B. Potter, of New York, was the father of the national bank system. It has been claimed that the credit belongs to Silas M. Stilwell, of New York, on the ground that late in 1862 in an interview with Mr. Jordan, the solicitor of the treasury, he urged the adoption of the system and submitted to him the draft of a bill embodying his views on the subject. But any suggestions of such a system made in 1862 are too late to weaken the claim on behalf of Mr. Potter. In the early part of the war realizing the promise of a protracted contest and the necessity of abundant means for its prosecution, as well as desirous of breaking up the old system of banking, he conceived and urged the government to adopt a plan which was practically followed in the enactment of the National Banking Law. On the 14th of August, 1861, he addressed a letter to Hon. Salmon P. Chase, secretary of the treasury, proposing

“To allow banks and bankers duly authorized in the loyal states to secure their bills by depositing with a Superintendent appointed by the Government United States Stocks at their par value thus making the stocks of the United States a basis of banking on which alone a national circulation can be secured and that if the same shall fail to be redeemed by the bank or banker issuing the currency then on due demand and protest such superintendent shall sell and apply to the redemption of said currency the stocks held to secure the same. . . . This money might properly be designated United States currency. First, the bills thus secured will have in whatever state issued a national circulation and be worth the same in all parts of the country. . . . Second, the fact that in this way banks and bankers could obtain a national circulation for their bills would make United States Stocks eagerly sought after by them and their price would be always maintained at or above par though they bore only a low rate of interest. Four per cent. bonds could never fall below par after the system is fairly understood and at work. . . . The adoption of this plan could not fail to put an end to all financial troubles during the war and be an increasing benefit and blessing ever after. While it would supply all the means required for the war it would instantly enable the older and newer portions of the country to increase their trade with each other by supplying to such newer portions an abundant and perfectly safe currency.”

Mr. Potter was born in Charlemont, Mass., March 10, 1823. He studied law at the Harvard Law School and in the office of Charles Grandison Thomas, in Boston, and was admitted to the Suffolk bar, February 12, 1848. In the course of his practice he became connected with enterprises for the manufacture of sewing machines, and in 1853 removed to New York. In 1876, he retired from active business, with a fortune, and in 1886 completed the large office building in Park Row, in New York, which bears his name. In 1882, he was chosen a member of Congress, to represent

the Eleventh Congressional District of New York. He received the degree of LL. D. from Williams College, in 1889, and died in 1894.

The National Banking Act provided that associations of not less than five persons might be organized for banking purposes, with a capital of not less than \$100,000, and in a city of 50,000 inhabitants not less than \$200,000, but that banks with a capital of not less than \$50,000 might be established in places with a population not exceeding 6,000. It also provided that such associations should deposit with the government United States Bonds not less than \$30,000, and not less than one-third of the paid-in capital stock, and be entitled to receive circulating notes equal in amount to 90 per cent. of the market value of the deposited bonds, but not exceeding 90 per cent. of the par value of said bonds.

It further provided for the issue of \$300,000,000 of notes to be received at par in the payment of taxes, excises, public lands and other dues to the United States, except for duties on imports, and also for all salaries and other debts and demands owing by the United States to individuals, corporations and associations within the United States, except interest on the public debt, and in redemption of the national currency. It still further provided that banks in St. Louis, Louisville, Chicago, Detroit, Milwaukee, New Orleans, Cincinnati, Cleveland, Pittsburg, Baltimore, Philadelphia, Boston, New York, Albany, Leavenworth, San Francisco and Washington city, should keep in lawful money twenty-five per cent. of the amount of its notes in circulation and deposits, and that all other banks should keep not less than fifteen per cent. It was also provided that each bank should pay the government one-half per cent. semi-annually on the average amount of its notes in circulation, and one-quarter per cent. upon the average amount of its deposits, and also one-quarter per cent. on the average amount of its capital stock beyond the amount invested in United States bonds. Any state bank could become a national bank. On the 3d of March, 1865, the banking act was amended by providing that notes should be issued to associations according to capital as follows: To each association not exceeding \$500,000, ninety per cent.; to each exceeding \$500,000, eighty per cent.; to each exceeding \$1,000,000, and not exceeding \$3,000,000, seventy-five per cent.; and to each exceeding \$3,000,000, sixty per cent.; and that \$150,000,000 of the amount of authorized notes be apportioned among the associations in the states, territories and District of Columbia according to representative population, and the remainder among associations in the same way having due regard to their existing banking capital, resources and business.

The same act provided for a tax of ten per cent. on all circulation issued by state banks. By an act passed March 2, 1867, it was provided that temporary loan certificates bearing three per cent. interest might be issued to the amount of \$50,000,000 and that said certificates might constitute for any national bank a part of the required reserve, provided that not less than three-fifths of the reserve of such banks should consist of lawful money of the United States. On the 25th of July, 1868, an act was passed providing for an additional amount of \$25,000,000 of temporary loan currency and July 12, 1870, the addition of \$54,000,000 of circulation was permitted to be issued to the banks, and no bank was permitted thereafter organized to have a circulation exceeding \$500,000. It was also provided in 1870 that circulating notes redeemable in coin might be issued to banks not exceeding \$1,000,000 to any bank, the same to be secured by a pledge of United States bonds. In the same act an issue of \$25,000,000 more of circulation was authorized to be issued. The law has been amended at various times, but the above statements are sufficient to show its general purpose and scope.

After the passage of the National Banking Act all the banks in Massachusetts, proposing to continue business, organized under that act. Since that time many new banks have been organized. The total number of banks in New England has not largely increased. In 1864 it was five hundred and seven, and in 1896 five hundred and forty. In Massachusetts alone there were, in 1896, two hundred and sixty-eight national banks, of which fifty-five were in Boston. The capital of these banks, in December, 1895, was \$97,017,500, of which \$52,250,000 was in Boston. The loans and discounts were \$261,129,730.09, of which \$151,545,973.74 was in Boston. The National Bank circulation was \$27,450,712.50, of which \$8,981,687.50 was in Boston. The individual deposits were \$189,484,397.99, of which \$112,065,195.48 were in Boston. The United States deposits were \$187,060.80, of which \$103,025.80 were in Boston. The surplus fund and individual profits were \$39,029,748.21, of which \$18,994,233.10 were in Boston.

The specie in the banks was \$16,751,566.10, of which \$11,915,241.88 was in Boston. The legal tender notes were \$7,127,737.00, of which \$5,127,390.00 were in Boston. Since the national banking system went into operation three hundred and thirty in all the states, with a capital of \$55,775,290, have become insolvent, of which four were in Massachusetts; the Pacific of Boston, with a capital of \$961,300; the Lancaster, of Clinton, with a capital of \$100,000; the Abington, of Abington, with a capital of \$150,000; and the Maverick, of Boston, with a capital of \$400,000.

In October, 1896, the whole number of national banks in the country was three thousand and seventy-six, with total resources of \$3,263,685,313.83, of which loans and discounts were \$1,893,268,839.31, and money of all kinds in the banks \$336,342,834.70. The operation of the national banking system has been in the main successful. So far as national bank currency is concerned its improvement on that of the old state bank bills which were at a discount everywhere except in the neighborhood of the bank of their issue is so great and so patent as to need no statement of proof.


With regard to the character of the basis of circulation the time must sooner or later come when something must be substituted for United States bonds. The government will not always remain in debt, and at some time the bonds held by the banks will be paid. The question has already been raised, "What shall be used in their place?" Some have suggested state and municipal bonds, but these though comparatively safe are not absolutely so, and nothing less than absolute safety like that which a government guarantee furnishes will in seasons of distrust make national bank bills good everywhere and under all circumstances.

With state and municipal bonds accepted by the government in consideration of its guarantee of the circulation, it is true that the bill-holder would be safe. But the government would only consent to take charge of the bonds for the bank depositing them and apply them, as far as they would go, to the redemption of the bank's circulation. In case of the failure of a bank, any repudiation or serious depreciation of the bonds would cause a discount on the bills, and a single occurrence of such a case would discredit, to a certain extent, the whole volume of circulation afloat. It may be worthy of consideration whether a semi-annual redemption tax of a certain percentage on circulation paid by every bank for the formation of a redemption fund, which should be applied to the redemption of the bills of any insolvent bank, might not meet the exigency whenever it shall arise. The fund might be a constantly increasing one, owned by the government and considered a compensation for its guarantee, or it might be suspended after it had reached such an amount as would be considered sufficient to meet any possible loss.

CHAPTER CXL.

INSURANCE IN MASSACHUSETTS.

BY NATHAN WARREN.

HE history of insurance in Massachusetts is replete with the progress and advancement of the commonwealth in all that has made her great and influential among the states of the Union. Her people, with their high intelligence, their enterprise in commerce and manufactures, their political foresight in all that relates to the structure of a great popular government, have made generous use of the elements which conduce to prosperity, and development of the resources of the country.

Among the institutions which have marked the history and have materially helped to advance the strides of the nineteenth century in its grand progress, is that of insurance. Insurance, in its different branches and various forms, has been a factor in the century's growth; and it is mainly within that period, through appropriate organizations and statutory enactments, that it has risen to a position of essential importance in the economics of business and social life. It is one of the features of the newly awakened life, and of the full and generous impulses imparted to the civilized world by the American Revolution. It inculcates the great principles of unity of effort and mutual assistance and responsibility. It is based on the high moral maxim of "Bear ye one another's burdens." By it commerce and manufactures have been promoted and developed beyond any thing that individual effort would have dared to attempt, and enterprises of great utility and magnitude have been rendered possible. By pledging the resources of the many for the protection of each individual, energy and adventure have been carried to an extent and success otherwise unattainable.

Insurance means indemnity against risks and perils of different kinds from unknown or contingent causes, and is the sequence of the doctrine of chances and probabilities. Its practice in some form dates back to the remote ages. Though crude and imperfect at first, it has led through the natural process of evolution to the perfect development and world-wide extension of to-day. Back in the misty past, before the Christian era, we learn of the regulations for mutual protection against damages and disasters, by rude and primitive stipulations of equitable contributions of the many for the compensation of the few of their number who were unfortunate in losses. The system is coeval with the spirit of adventure which, with the spread of the human race, tempted fortune by sea and land.

Marine insurance is undoubtedly the earliest kind practiced, both on account of the greater dangers attendant upon enterprises by sea, and of the larger amount of property at risk in a single venture. Provision was also made in this way for contributions for the dangers to the members of a caravan, and for the ransom necessary

for their release from capture by robbers. In the third century in the Roman Empire, a law of mortality was formulated, not, however, with relation to life assurance, but for fixing the value of life estates. This is the only one of which there is any record until the seventeenth century, and thus the Romans unconsciously laid the foundations upon which the great structure of life assurance, as instituted in our day, was ultimately to rest.

Italy and Holland and the earlier commercial nations of Europe developed and extended the systems and schemes of marine insurance. Insurance was effected by individual underwriting, through combinations of individuals without any definite organization like our corporations of to-day. Thus those who united in and subscribed to an agreement of indemnification, or *underwrote* the bond of obligation of payment in certain contingencies, became the underwriters. As early as in the thirteenth century the Lombards, the great money-lenders of Europe, carried on a large business in individual underwriting. It was their system which, with improvements and modifications, became the origin of the even more famous Lloyds, which continues in practice to some extent at the present time in this country.

Though this business of marine underwriting was quite extensively conducted in England with her growing commerce and maritime enterprise, still it was not the subject of legislation until the beginning of the seventeenth century. The first mention made of it in any statutory enactment was in the reign of Elizabeth in 1601.

It was not until the great fire in London in 1666 that the subject of fire insurance attracted any attention. Immediately after that great event, the necessity of such mutual provision suggested itself, and various schemes of mutual contribution, of municipal insurance, of friendly societies, were started with that end in view.

The American colonies, even in their early settlement, naturally adopted the forms of underwriting and the contracts and conditions then in vogue in the Old World. These applied mainly to marine risks, as the hazardous adventures and more extensive enterprises of the colonists were upon the sea. While the custom of individual underwriting, by which persons made their own contracts and subscribed for the amounts they were willing to assume, was mainly prevalent, there was considerable business carried on through foreign insurance societies. There is record of such an agency of London societies in Boston in 1724, conducted by John Marion. By this time, the disastrous conflagrations which had visited our larger American towns and laid waste from time to time so large an extent of their area, not only prompted more extensive and improved methods of prevention, but systems and combinations of mutual contribution for the losses. There was an aversion, and even a strenuous opposition, however, to any chartered organization for insurance. The first insurance company in America was organized in Philadelphia, in 1752, and was called, "The Philadelphia Contribution for the Insurance of Houses from Loss by Fire." Of this company, Franklin was one of the directors.

After the close of the War of the Revolution and the adoption of the State Constitution in 1780, when Massachusetts more definitely assumed the character of statehood, the business interests on both land and sea developed a natural expansion. The merchants had a commendable and patriotic ambition to display the flag of the new republic in the uttermost parts of the world. Manufacturers sought to create new industries and increase the old to meet the growing wants of an independent people. For large enterprises it was evident that some form of insurance on a broader scale, than through individual underwriting or by mere associations, must be put into practice. Some system commensurate with the new order of things was essential. In cases of loss, the settlements with the different underwriters were often

the occasion of controversies and of the use of all the artifices of postponement; while with the successful outcome of an adventure, the individual underwriters were prompt to accept their premiums, in case of loss, they were slow in accepting pecuniary responsibility. Transactions of business through agencies of foreign societies were inadequate and cumbersome. Still, with the growing necessity of some improved method of insurance, the fear of corporations compelled the continuation of the primitive ways until heroic experience and experiments should sanction something better. The independent citizen would prefer to sacrifice his property to fire, rather than to the imaginary danger of loss by corporate greed. So the petition of several individuals in Boston, May 12, 1785, for the incorporation of the Fire Office Insurance Company was refused, as it was "not considered for the advantage of the town."

In 1795 another attempt to obtain a charter was made, and at this time with more success, as the legislature, pursuant to the petition, granted a charter, June 25, for the "Massachusetts Fire Insurance Company." The capital stock was \$300,000, in three thousand shares at \$100 each, with authority to augment to a capital not exceeding \$600,000. The capital stock was to be paid in ten annual instalments of \$10 per share; but if the losses at any time exceeded the capital stock on hand, assessments were to be levied and \$10 additional for every share. No proprietor was to be liable for more than \$100 on each share. No dividend could be declared until all losses were paid. Insurance was not allowed to be effected for more than three-fourths of the value of the property insured. The act provided that the charter should remain in force for twelve years and no longer, thus showing the misgivings and conservative care with which the innovation of a chartered Fire Insurance Company was allowed to enter the field of experiment and practical operation.

As the petition for this first Insurance Company is an illustration of the impression desired to be made upon the General Court for a privilege now so common and asked for in the merely formal language of a request, it is given here as an interesting feature of the history of insurance companies. Its almost apologetic tone and its argumentative character show that the petitioners were aware of the obstacles they were to encounter.

The Honorable the Senate and House of Representatives in General Court assembled :

The Petition of Jesse Putnam, William Wetmore, William Shattuck, John Winthrop, Jona Harris, William Brown, Sam'l Salisbury and John Andrews—

Humbly sheweth that your Petitioners anxious to lend their aid to prevent the Calamities incident to themselves and fellow Citizens from the frequent Fires experienced in this and other populous Towns, are of opinion that an Act of Incorporation for the purpose of making Insurance on dwelling Houses and other Buildings and the property therein contained, will be the most effectual alleviation that prudence can dictate. The sufferings of the Citizens of Boston have been too numerous and too recent to be readily effaced from the Heart of Sensibility. And although charitable Donations have in all Instances been very liberal and far exceeding the right of expectation, yet they have been vastly inadequate to the Relief which we flatter ourselves such an Institution is calculated to afford. Nor will any one rest his dependence on the precarious fund of charitable Subscriptions when for a very inconsiderable Premium he can secure a permanent Resource competent to every possible Loss. The early establishment and continuance of similar Institutions in all parts of Europe may be produced as conclusive evidence of their beneficial effects. And Experience has taught that this Species of Insurance must be performed by Companies, or corporate Bodies having large and permanent Funds at immediate command in order that the business may be carried to so great an Extent as to embrace any object that may offer, and still afford full Security to the Insured, without producing inevitable Ruin to the Insurers, in the greatest Losses that may probably take place.

Your Petitioners therefore pray, that they may be incorporated for the above named purpose; presuming that no injury can arise to any Individual of the Community from granting the Prayer of their Petition, but, on the contrary, that it will give that Security of Property and quiet of mind which has not been heretofore experienced.

And your Petitioners as in Duty bound shall ever pray.

JESSE PUTNAM,
WM. WETMORE,
WILL SHATTUCK,
JONATHAN HARRIS,

JNO. WINTHROP,
SA: SALISBURY,
WILLIAM BROWN,
JNO. ANDREWS.

Doubtless the early success of this company was gratifying to the proprietors and of such a nature as to strengthen public confidence. The company, encouraged to enter upon a broader field of operations, applied in 1799 to the legislature for authority to do marine insurance and to have the name changed to the "Massachusetts Fire and Marine Insurance Company." This authority was granted and, in addition, a tenure of life for twenty years from the original date of the act of incorporation. By the terms of the act especial care was taken of the fire risks already assumed. No marine risk was to be taken until the capital had been increased by \$300,000 subscribed, of which amount \$180,000 should be actually paid in; \$300,000 was to be set aside for taking care of the fire risks, and if any portion of that sum was used for the payment of losses by perils of the sea, the directors should be answerable in their private capacity. It was also provided that prior to the issue of a marine policy, a statement of the financial condition of the company should be published. Other restrictive features were imposed, guarding the interests of the insured against careless management. A requirement that, whenever called upon, the company should state its condition under oath to the legislature, recognized early the principle of State supervision.

By renewals of its charter, this company remained in existence until 1848, when, at its own request, the charter was repealed and the company ceased to do business, after a career of nearly fifty-three years.

The Massachusetts Mutual Fire Insurance Company was the next one incorporated, receiving a special charter by act of March 1, 1798. This act provided that, after two millions of dollars should be subscribed to be insured, the corporation were authorized to insure, for the term of seven years, any building in the commonwealth to an amount not exceeding four-fifths of its value; and in case any member should sustain damage over and above the existing funds, the directors should levy an assessment, provided that no member should pay more than \$2 for each dollar advanced by him as premium and deposit.

This company remained in operation until the great fire in Boston in 1872. In a month after that event it reorganized, and continued to do business until 1894, when it re-insured its risks and went out of existence.

The next company was the Newburyport Marine, incorporated in 1799, while the Boston Insurance Company and one other completed the list of those chartered prior to 1800.

Thus Massachusetts, with her five well-organized companies, had slowly and carefully taken her advance steps in the field of successful insurance management, and stood ready to meet the new century with the proper safeguards for the mutual interests of the policy-holders and the companies instituted under her fostering care.

In addition to those named, twenty-seven fire and marine companies were incorporated before 1830. Many of them dissolved and went out of existence from various causes before the great fire of 1872, and only two survived that fearful ordeal.

With the increase of business and the number of companies, general laws were enacted for their regulation, from time to time, as the wisdom of our legislators and the necessities of the public welfare dictated.

In showing the growth of our statutory literature on the subject of insurance, which has extended into a code worthy of the supervisory legislation of the commonwealth, some of the laws may be cited. In 1807, a resolve was passed calling for a statement of the amount of capital stock actually paid in, the character and amount of the fund in which it was invested, and the amount of outstanding risks.

In 1818, an act was passed defining the powers, duties and restrictions of insurance companies. This was the first general law enacted in Massachusetts, regulating the business of insurance companies, and applied only to those writing marine business. It provided that all insurance companies, hereafter incorporated under authority of the commonwealth, should have power and authority to make insurance on vessels, freight, money, goods and effects, and against captivity of persons, on the lives of persons during absence at sea, and on cases of money lent on bottomry and respondentia, and to fix premiums and terms of payment. In case of losses whereby the capital stock should be lessened before the instalments were all paid in, each proprietor or stockholder's estate should be held accountable for unpaid instalments. The president and directors should publish once a year the amount of stock, against what risks they intended to insure, and the largest sum to be taken on any one risk. They were forbidden to write on any one risk a sum exceeding ten per cent. of the capital stock.

In 1820, a general law was passed, authorizing all companies to insure against fire. That right had previously been delegated by special charter. But no insurance should be taken on any one risk against fire exceeding ten per cent. of the capital stock actually paid in.

In 1827, an act respecting the agencies of foreign insurance companies, and providing a forfeiture of \$500 for writing a policy in any such company with a paid-up cash capital of less than \$200,000, or for a risk greater than ten per cent. of such capital, was added to the statutes; and, subsequently, in 1832, this was supplemented by a requirement that such agents should give bonds of \$5,000, make returns of business written, and pay taxes of one and one-half per cent. on premium receipts. In 1835, in an act regulating Mutual Fire Insurance Companies, they were permitted to issue policies for seven years for three-fourths of the value of any building in this state, whenever the company had \$50,000 subscribed to be insured, every such policy to create of itself a lien on the property insured for the purpose of securing the deposit notes and of any lawful assessment thereon.

Under the provisions of an act of 1837, all companies having a specific capital were required to make annual returns to the secretary of the commonwealth instead of the treasurer as before. The form of return, with but twenty-one queries, is in marked contrast with the elaborate forms now in use numbering nearly two hundred interrogatories each.

The first official report of the business of insurance was compiled and rendered by John P. Bigelow, the secretary of the commonwealth, in 1838. It was an eight-page document, and was entitled an "Abstract of the Returns of Insurance Companies Incorporated with Specific Capital; Exhibiting the Condition of those Institutions on the First Day of December, 1837." Only Massachusetts' companies were represented, and no mutual companies were required to report. The number of companies represented was forty-eight, twenty-nine located in Boston and nineteen in other parts of the state. Ten companies were not reported. The aggregate

capital was \$9,415,000, and the outstanding risks were a little more than \$139,000,000. On account of the insufficiency of the returns, no complete data as to assets and liabilities and the character of investments can be gathered. Subsequent abstracts for several years bore testimony of the want of accountability on the part of the companies.

With the growing railroad interests in the commonwealth and the policy of the state to encourage and promote them by permitting institutions to invest in their stock, the insurance companies were allowed to invest one-third of their capital stock in railroad companies incorporated in the state whose capital was fully paid in, provided that not more than one-fifth of the capital of any company should be invested in any one railroad corporation.

Massachusetts mutual companies were permitted in 1849 to insure property included in the terms of their charters in any of the New England states and the state of New York. And in 1850, certain corporations in Lowell were allowed to contract with each other for mutual protection against fire. This is the beginning of factory insurance, now so considerable in its extent.

An important step was taken in 1852, when the secretary of state, treasurer and auditor of the commonwealth were created a board of insurance commissioners to examine annually the statements and returns made by foreign companies and the agents, and prepare and submit to the legislature an abstract of such returns. In the following year, the commissioners were appointed to revise and incorporate in one act all the general statutes upon the subject of insurance. This codification was enacted as a whole by the legislature of 1854, and gave the state an admirable code of insurance laws. As the most important laws have been referred to as they were enacted, it is not necessary now to make any special reference to their provisions in their new compilation.

The laws of Massachusetts on the subject of insurance, like those on all great questions of legislation and public policy, adapted according to the exigencies of the time and the growing necessities of proper regulations, were wisely framed to protect the mutual interests of the policy-holders and the companies. Massachusetts insurance legislation has always been considered a high standard, and has been followed and copied in many states of the Union. The provisions have been progressive yet conservative, and have sought to establish proper safeguards without onerous and unreasonable restrictions. To this jealous care, through its laws and supervision, are due in great measure the success and good management of the companies and the ample protection afforded the insured.

In 1855 the Massachusetts Insurance Department was formed. It was under the charge of three commissioners, who were to have general supervision of all companies incorporated in the commonwealth or doing business in its limits. This was the first insurance department organized in this country, and has now been followed by similar departments in most of the larger states of the Union. As previous reports for nineteen years had been made by the secretary of state, and the transfer to the new department defines a line of demarkation, it may be interesting to give some of the statistical items of his last report :

One hundred and fifty-four fire and marine companies were transacting business in the state.

One hundred and thirteen were home companies and forty-one were incorporated without the state, and five of these companies were from foreign countries. Of the home companies thirty-four were stock companies and nineteen were located in Boston.

Their aggregate paid-up capital was \$6,386,100, and their outstanding risks \$185,000,000.

Fifteen were mutual marine and mutual fire and marine, of which seven were Boston companies. The assets of all were \$6,398,389, and the outstanding risks \$130,000,000.

There were sixty-nine mutual fire companies; eleven were located in Boston, and the aggregate risks of all were \$200,089,637.

Very much of the practical insurance legislation hereafter enacted and embodied in a permanent form in statutory provisions is the result of the suggestions and experiences of the insurance department. Its recommendations, officially announced, and based upon the policy of protection to the company and the policy-holder, have been incorporated into law and have gradually and practically met the growing requirements of the business. From the first establishment of the department, the legislature has wisely sought its approval and sanctioned its general policy, and the history of insurance and of the department is harmoniously associated with the development and achievements of effectual progress.

Many fraudulent companies were doing business in the state and imposing upon a credulous public, which, with the deceit practiced, could not well discriminate between the honest and sound companies and those unworthy of confidence. It was among the first acts of the Department to weed out these worthless companies which, as the Commissioners say in their first report, "seem to have been gotten up more for individual emolument than the public good, and are managed with that skill, economy and experience so essential and important to the successful development of those beneficial results which should flow from well-regulated institutions." The care and watchfulness of the Department subsequently have relieved the people from much double dealing and competition, which gave protection only in name.

To provide for greater security, it was made unlawful for a company to issue policies until all its capital should have been subscribed and paid in, in cash. Companies chartered on stock and mutual plans were required to keep the business of their stock and mutual departments separate. No mutual company, incorporated in another state, was allowed to insure property upon the mutual plan in the commonwealth, unless it had \$100,000 in cash funds, well invested and available and at least \$100,000 in deposit notes; while no Massachusetts mutual companies, thereafter incorporated, should insure property without the limits of the state.

The great fires in Chicago in 1871 and in Boston in 1872 tested to the utmost the strength of fire insurance companies. The losses in the Chicago fire, by one hundred and six companies doing business in Massachusetts, were computed at about \$56,000,000. All the insurance in force in that fire was about twice that amount. Three Massachusetts companies were obliged to suspend. These three, with twenty other Massachusetts companies, had losses to the amount of \$4,471,500, yet after the losses were paid, these twenty survivors had a surplus of over \$10,000,000.

The year 1871 was also very disastrous to marine companies. The great losses in the Arctic Whaling fleet, largely from Massachusetts, called heavily upon local companies. Three companies in New Bedford sustained losses aggregating \$860,000; yet all the claims were promptly paid during the year.

The great fire in Boston involved a loss of \$75,000,000 to \$80,000,000. Of this amount \$56,000,000 was covered by insurance, and the amount paid thereon was \$37,000,000, leaving the balance a total loss. One hundred and ninety-two companies had risks in this great conflagration. Fifty-two of these were Massachusetts companies, whose losses were \$35,500,000. The losses of English companies were about

£625,000. Of the thirty-two companies rendered insolvent, twenty-six were Massachusetts companies, four of the mutual and twenty-two joint stock. But eleven of the latter survived. The Massachusetts companies thus obliged to go out of existence are given below with the percentage of payments. Many of them were among the number of the oldest and presumably the strongest companies in the state.

Boylston Fire and Marine	47.4	Bay State	89.7
Franklin	20.	City	57.5
Manufacturers'	77.65	Eliot	41.3
Merchants	37.87	Exchange	37.
Neptune	36.	Firemen's	41.2
Prescott Fire and Marine	60.5	Howard	44.4
Washington	75.	Laurence	40.5
National	38.	Mutual Benefit	26.7
Boot and Shoe Manuf'rs' Mutual .	90.	North American	64.7
Mechanics'	85.	People's	73.6
Massachusetts	100.	Shoe and Leather Dealers'	31.3
Union	70.	Suffolk	33.55
Boston	53.75	Tremont	36.

The combined capital of the companies thus put out of existence in one night was about \$6,000,000. Some of them had had an unexampled degree of prosperity and were paying annual dividends of from 15 to 25 per cent. Their management was wise and conservative. They were among the most solid and profitable institutions of Boston. Their stock was considered safe for trust funds, and was an heirloom to many families who drew their principal revenue from the dividends. Thus, while the great disaster destroyed the material property of those engaged in mercantile pursuits and the ownership of real estate, bringing upon them great losses, it carried distress to many in the quiet realms of inactive life, in the homes of old age and widowhood, by taking away the chief means of support supposed to be laid by in security.

Immediately after the great fire the legislature was called together in special session. While other matters connected with so great a calamity to the chief city of the state demanded attention, the suspension and embarrassment of many insurance companies, with the natural want of confidence in the stability of all, prompted some legislation to meet the occasion. The time of excitement after a great fire is not opportune for good legislation, but the emergency seemed to demand even some hasty enactments for the public protection. A bill, authorizing the formation of insurance companies, provided for their establishment without special charter. It authorized the formation of mutual fire companies with a guaranteed capital of not less than \$100,000 nor more than \$300,000, and mutual marine companies with a permanent fund of not less than \$400,000. Mutual companies were not allowed to issue policies until \$500,000 in insurance had been subscribed. Towns and cities of less than 4,000 inhabitants were authorized to form themselves into insurance companies; while in cities and towns of more than 4,000 inhabitants fire insurance districts could be established with limits of amount of insurance in such districts.

The recuperative power of the people was well illustrated by the determination to rise from the ashes, and to re-build and improve the "burnt district." The insurance companies, with commendable appreciation of their character and abilities, met the great strain upon them, and displayed the benefits to be derived from the

foresight of their policy-holders. The acting-commissioner, Deputy Rhodes, in order to relieve the doubts and uncertainty in regard to risks and to give reliable data of practical value, sent a circular to all the companies carrying risks for the desired information. The facts and statistics given were productive of good results when made public.

It was at about this time that examination and investigation of the foreign companies doing business in the state was instituted, and carried forward to a complete and satisfactory conclusion. In this investigation, as in the establishment of the department, Massachusetts was the first state in the Union thus to extend its supervision of insurance to the companies of foreign countries seeking American patronage.

In 1873 the commissioner was instructed "to investigate the subject of the feasibility of any system of state and municipal insurance, and of the necessity of any change in the existing system." In his report the commissioner opposed the low amount of subscriptions allowed before a municipality could commence the issue of policies, \$50,000 being the amount allowed in the law of 1872. He maintained the limit of \$500,000, under which all other purely mutual companies were authorized to commence the issue of policies, and showed by actual experience that the requirement was not excessive.

The lessons of the great conflagration of 1872 were applicable for some years, and were frequently quoted and referred to in the insurance reports and literature of the day. The influence was salutary,—not only in impressing upon the public the necessity of precaution and of provision for ample protection, upon municipalities the requirement of great care in the management of all means of prevention and extinguishment of fires, and in the regulations regarding buildings and their construction,—but upon the government the importance of greater safeguards regarding the stability of insurance companies and their ability to afford indemnity in cases of heavy losses. Surplus reserves, the limitation of risks, the liability of companies to make great losses and incur an impairment of resources by a single fire, were all the subjects of much discussion and legislative efforts in the direction of protection of the insured and insurer. The desired end could be but partially accomplished. While protection for the public was sought by security of the companies and the lowest rates of insurance, at the same time sufficient encouragement was necessary to induce capitalists to put their money into the insurance business. And, in recognition of this fact, the general law increased the amount of paid-up capital required before the transaction of business; and, while the dividends were limited, a capitalization of surplus was allowed in the interests of both stock-holders and policy-holders. Thus there was provided a fair profit to the former and greater protection to the latter.

The introduction of water into many cities and towns was stimulated, not only for the purpose of domestic convenience and economy, but as a means of protection against great conflagrations, and of the consequent reduction of the necessary and legitimate cost of insurance. With the limitations of the profits of insurance conducted as a business under the law in stock companies, and the reciprocal relations of the policy-holders and the companies, in the mutual companies, it is self-evident that expenses and the savings regulate the premium rates and the burden to the insured. No laws, however hostile in their intent, can divorce the united interests of the policy-holder and company. Improvements and greater facilities for reducing losses ultimately redound to the benefit of the individual policy-holder.

The various forms of policies, with their different provisions and restrictions, finally became quite embarrassing and burdensome to the insured, and the inter-

rogatory of "Who reads an insurance policy?" suggested a reality rather than a joke. Policy-holders might have as many distinct forms as they had policies, many with important stipulations printed in fine type and quite obscurely presented. Often, in a loss, the insured, too late, might discover that he did not have the policy which he supposed he had, and mutual charges of neglect and deceit often arose. Honorable agents and companies suffered a stigma for practices not honorable, when blameless, and litigation was not seldom the result of a misunderstanding or misinterpretation of the clauses of policies. To obviate this difficulty and protect both parties in fair business dealing, the legislature of Massachusetts, in 1873, adopted a "standard form" of fire policy for permissive use by all fire companies doing business in the state.

In 1881 a new and improved form was rendered compulsory. This form was adopted only after great deliberation, with frequent conferences with the officers of companies, agents and experts, and business men well versed by practical experience in insurance as policy-holders. While a uniform blank was to be used for all risks and by all companies, opportunity was given for modifications or extra privileges to suit different classes of risks, by riders or slips attached to the face of the policy. Thus the insured was easily and clearly informed of all the conditions of his policy, and doubly assured of its correctness and equity. Besides the necessary provisions adaptable to the risks and the terms on which they were assumed, there was a proviso submitting to arbitration conflicting claims that might arise in settlement.

This style of policy has been in use to the present day, and has given general satisfaction in its practical application. Its terms and character have been adopted by other states.

In the same year, the three-fourths restriction upon mutual companies was stricken out and the field left open to them to insure for the full value, as in the case of stock companies.

In some states of the Union the valued policy law has been enacted, providing, in case of total loss, for the payment of the sum named in the policy, without question as to what the loss might be in reality. Several attempts have been made to have such a law enacted in Massachusetts, and bills have repeatedly been introduced into the legislature, and hearings upon them held, in furtherance of the object. While they have developed at times considerable strength in their advocacy, they have stood little chance of enactment. The insurance commissioners have always been openly and actively against them, and the strong sense of the legislature has not approved them. And doubtless until there is a radical change of sentiment, they will make their occasional appearance, arouse a transitory interest and eloquent advocacy, and then lapse into the volume of unwanted and unsuccessful legislation.

The largely-increasing amount of insurance carried, with an increasing business and population, the almost alarming extent of annual losses, and the instability of many companies, that come and go with frequent recurrence, demand the watchful care of the government and of the department which administers its laws. Insurance is more and more recognized as the handmaid of business prosperity and civilization. Its management and application and the principles on which it is based make it a science. Those who manage companies and large agencies follow a special and exacting vocation. Associations of agents for their own protection and for a systematic conduct of business, have become something like the old guilds. Tariffs of rates are adjusted almost with the nicety of mathematical calculation. The interests of the insurer and the insured are sought to be identified. While in some states, in New York for instance, the broker who is the medium between the company or its agency and the

insured, in negotiating a contract of insurance is the agent of the insured; in Massachusetts, by law of 1879, he is the agent of the company. Trouble arising from irresponsible brokers, often render this distinction one of serious complication.

Associations of individuals effecting insurance on the basis of the Lloyd's system, but without the sterling character of that original and time-honored method, have recently come into vogue, and disturbed to some extent, the administration of insurance as conducted by the regular companies. Many of them, under the pretense of insurance, have, in reality, given little insurance in its true character and import.

Prompted by the successful experiment of mutual insurance among the cotton mills of Rhode Island, where companies for the exclusive insurance of mill property had been organized, a company of like character—The Boston Manufacturers' Mutual—was formed in 1850. This has been followed by seven others, and they are familiarly known as the Factory Mutuals. For insurance in these, special and stringent requirements are made, care in construction of buildings and machinery is demanded, under rigorous rules, ample and modern appliances of prevention as well as extinguishment must be provided, and personal watchfulness guaranteed. Thus, under a system as nearly perfect as ingenuity can devise, the cost of insurance has been reduced to the minimum. Practical prevention has been the object aimed at, and the result has been salutary, not only for the companies interested, but for the whole insuring public.

In 1894 the state of Massachusetts established the new office of fire marshal, whose duty it is to investigate all fires in the commonwealth, within two days of their occurrence, and determine their causes, with power to arrest those supposed to be criminally implicated, and to exercise a supervision for the protection of property from this great devastation. For this purpose, the state is divided into ten districts, and officers are detailed to institute inquests when necessary. Although he has as yet rendered but two reports, and the establishment of the office is somewhat tentative, still there is ample evidence of the necessity of a governmental effort to restrict the appalling prevalence of fires. With the fire losses in Massachusetts in 1893 of upwards of \$8,000,000, about 5,070 were incendiary and unknown. Of 3,821 fires in 1894, involving a loss of over \$5,000,000, 310 were incendiary, and 625 unknown. While of 3,606 fires in 1895, with a loss of over \$4,000,000, five per cent. of those in Boston were incendiary, and fourteen per cent. of those out of Boston were of like origin. The marshal states that the causes of a large proportion of these incendiary fires may be expressed in one word—over-insurance. The fault of this over-insurance may be attributed to the combined zeal of irresponsible agents, and the cupidity of dishonest insurers.

Since the charter of the first insurance company in Massachusetts in 1795, the following is a recapitulation of the fire, marine, and fire and marine companies chartered in the state to 1895, comprising the record of one century's experience :

Chartered in Massachusetts	437
" by special acts	380
" under general laws	57
Joint stock	224
Mutual	213
Suspended	182
Joint stock	84
Mutual	98

The Massachusetts companies now in existence are : Sixty mutual fire companies, with

Assets of	\$35,083,863
Surplus	4,544,500
Premium income	5,523,716
Outstanding risks	860,567,630

Three Mutual Fire and Marine, with

Assets of	\$527,269
Surplus	330,000
Premium Income	215,895
Outstanding risks	7,510,029

Seven Joint Stock Fire and Marine, with

Capital of	\$3,850,000
Assets	9,199,631
Surplus	6,076,365
Premium Income	3,646,417
Outstanding risks	390,547,142

Seventy-nine Stock and Mutual Companies of other states are admitted to do business in the state, and

Thirty-two companies of foreign countries.

The amount of insurance written in Massachusetts in 1895 by the various companies is here given from the report of the insurance commissioner for that year :

FIRE BUSINESS.

	Risks Written.	Premiums Received.	Losses Paid.	Losses Incurred.
Massachusetts Mutual Fire Cos.	\$268,690,956	\$3,020,504	\$811,487	\$866,938
Massachusetts Mutual Fire- Marine Companies	1,177,241	16,594	2,479	3,135
Massachusetts Joint-Stock Cos.	52,812,733	475,539	174,018	153,933
Companies of other States . .	452,903,286	4,824,304	1,959,397	1,898,624
United States Branches . . .	245,096,470	2,695,071	1,217,774	1,107,324
Totals	\$1,020,680,686	\$11,032,012	\$4,165,155	\$4,029,954

MARINE BUSINESS.

Massachusetts Mutual Marine Companies	\$16,130,862	\$393,765	\$149,676	\$144,752
Massachusetts Joint-Stock Cos.	35,321,570	564,657	472,916	496,636
Companies of other States . .	67,379,572	367,081	221,376	160,310
United States Branches . . .	195,705,630	597,296	396,162	409,403
Totals.	\$314,537,634	\$1,832,799	\$1,240,130	\$1,211,101

The amount of business done by the Massachusetts Fire, Marine and Fire, and Marine Companies in the state and elsewhere, in 1895, was :

Insurance written	\$900,000,000
Outstanding insurance	1,260,000,000
Premiums received	9,300,000
Losses	4,600,000
Expenses	2,250,000

Massachusetts companies write about $31\frac{1}{2}$ per cent. of the fire insurance written in the state; $16\frac{1}{2}$ per cent. of the marine insurance, and 28 per cent. of both fire and marine.

In determining the liability of companies for the re-insurance of outstanding risks, the law formerly required a reserve of 50 per cent. of fire and inland premiums and the whole of marine premiums on risks not marked off. But it has been modified so as to require 50 per cent. on the actual unearned premium; but in marine risks the reserve shall be 60 per cent. of premiums on yearly risks, and those covering more than one passage not terminated, and the whole on other marine risks not terminated.

The increasing magnitude of fire insurance in the state is shown by the following statement of business for the past twenty years, taken at intervals of five years:

Year.	Fire Risks Written.	Premiums.	Losses.	Per cent. of Prems. to Risks Written.	Losses to Risks.
1875 . .	\$597,478,409	\$7,232,486	\$3,221,943	1.21	.54
1880 . .	609,132,542	5,479,552	3,085,273	.90	.50
1885 . .	661,380,951	7,402,583	3,132,435	1.12	.47
1890 . .	871,117,341	9,039,865	3,798,502	1.04	.44
1895 . .	1,020,680,686	11,032,012	4,029,954	1.08	.39

From 1887-1892 the aggregate of losses and expenses was 96.78 per cent. of premiums.

The oldest Massachusetts Company doing business is the Worcester Mutual, having commenced in 1824. The Norfolk Mutual in 1825, and the Middlesex and Hingham in 1826, follow in the dates of their active organization.

Fire insurance is to-day absolutely indispensable to business methods. The merchant could not get credit without it. The manufacturer would not dare to launch out in any great enterprise. By economic writers, it is regarded as one of the three great elements of the material advance of the nineteenth century. The companies are not enemies of the public; they are conservators of public and private interests. Yet from the clamor before legislative bodies and from hostile legislation, it might be inferred that they were engaged in plundering the people instead of rendering them assistance in promoting one of the great forces of civilization. With all the competition between the insured and the insurer, it is recognized as one of the mighty agencies which has successfully ministered to our material prosperity and glory. At this close of the century, it may be safely asserted that no monetary scheme has developed greater blessings and beneficence during its eventful history.

The following are the Massachusetts companies still actively engaged in business:

MUTUAL FIRE INSURANCE COMPANIES.

Name of Company.	Commenced business.	Name of Company.	Commenced business.
Abington,	1857	Central,	1895
Annisquam,	1847	Citizens',	1846
Ashfield,	1873	Cohasset,	1846
Atlas,	1892	Commerce,	1895
Attleborough,	1845	Continental,	1895
Barnstable County,	1833	Dedham,	1837
Berkshire,	1835	Dorchester,	1855
Bristol County,	1829	Eagle,	1895
Cambridge,	1834	Eastern,	1894

MUTUAL FIRE INS. COMPANIES.		MUTUAL FIRE INS. COMPANIES.	
Name of Company.	Commenced business.	Name of Company.	Commenced business.
Essex,	1829	Western Massachusetts, . .	1894
Excelsior,	1894	Westford,	1840
Fitchburg,	1847	West Newbury,	1828
Franklin,	1829	Winthrop,	1894
Groveland,	1828	Worcester Mutual,	1824
Hampshire,	1832		
Hingham,	1826	MANUFACTURERS' MUTUALS.	
Holyoke,	1843	Arkwright,	1860
Lowell,	1832	Boston Manufacturers', . .	1850
Lumber,	1895	Cotton and Woolen,	1875
Lynn,	1828	Fall River Manufacturers',	1870
Merchants' and Farmers', .	1847	Industrial,	1890
Merrimack,	1828	Paper Mill,	1887
Middlesex,	1826	Rubber Manufacturers', . .	1885
Milford,	1852	Worcester Manufacturers', .	1855
Mutual Fire Assurance, . .	1827		
Mutual Protection,	1864	MUTUAL MARINE COMPANIES.	
Newburyport,	1829	China,	1853
New England,	1894	India,	1867
Norfolk,	1825	Gloucester,	1847
Old Colony,	1894		
Quincy,	1851	JOINT STOCK COMPANIES.	
Salem,	1838	American,	1818
Salisbury and Amesbury, .	1855	Boston Marine,	1874
Saugus,	1852	Equitable Marine,	1845
South Danvers,	1829	Firemen's Fire,	1872
Standard,	1894	Mercantile Fire and Marine,	1823
Traders' and Mechanics', .	1848	North American,	1873
Wachusett,	1891	Springfield Fire and Marine,	1851

LIFE INSURANCE.—The history of life insurance is the record of a remarkable business which has reached astounding proportions in but little more than the space of a generation of man. It is only since about the year 1860 that its principles and practice have been popularly advanced. But now the life insurance companies of the United States hold an amount of quick assets double the capital of the national banks, while the amount of insurance in force rises into the thousands of millions. It is regarded as one of the great beneficent institutions of the age. The thought naturally comes up as to what should have given it its impetus and its sudden magnitude. The times and the spirit of the age may be said to have been quite ready for it. The recognition of the fact that it was a beneficial enterprise, giving security against the uncertainties of life, that it provided for those dependent upon the efforts of others, that its theory was based upon mathematical deductions verified by actual results, touched the reason of men.

But the main cause of the great progress of life insurance is the enterprise of the officers of companies and the persistence and indefatigable energy of agents. If we leave out the agent, the question of the rise of life insurance remains unsolved.

There are two kinds of life insurance,—the "legal reserve" and the "assessment" plans. Though there is a modification of the latter in the flexible premium

plan, adjusting the assessments to increased age, yet it is classed by insurance authorities under the head of assessment insurance. The first kind requires a reserve maintained at four per cent. interest, based on regular tables of mortality, and establishes a level premium to continue during the existence of the policy, or a specified time. The second requires no such reserve, but depends on assessments levied regularly in some cases, or as emergency may demand when losses call for the payment of sums named in the policies. First, attention will be given to the so-called "regular old line" or "legal reserve" life insurance. The companies doing business of this kind are organized under one of three plans, the "stock," the "purely mutual," or the "mixed," combining the qualities of both stock and mutual within certain limits. The mutual companies, however, largely predominate, and the mixed companies are practically mutual in their financial character.

It has already been noted, earlier in the general sketch of insurance, that the Romans had tables of longevity, but not for the purpose of life insurance. Late in the seventeenth century, marine underwriters gave temporary insurance upon lives as security for loans, with some reference as to life probability; and the Dutch and English had some tables to determine the value of annuities. The astronomer Halley constructed the first really scientific table of mortality in 1693. Several other tables have been constructed, notably the "Carlisle," the "Northampton," the "Combined Experience" or "Actuaries' Table," and the "American."

The first life insurance company was organized in England in 1706 on the basis of Halley's tables. This company, the Amicable, was followed by others, and, doubtless, the idea and practice of life insurance to a limited extent prevailed in America, as Franklin was a strong advocate of the principle. The first company in this country was founded in 1759, when the Presbyterian Synod of New York and Philadelphia procured a charter from the government of Pennsylvania for a corporation for the "Relief of Poor and Distressed Presbyterian Ministers and the Poor and Distressed Widows and Children of Presbyterian Ministers."

Life insurance, however, was conducted here in Massachusetts on the plan of individual underwriters and a very interesting document of that nature is in existence in a policy written upon the life of Gen. Benjamin Lincoln, then collector of Boston, for £1,000. The premium rate was £5 per £100, and the policy is signed by five underwriters against sums from £100 to £300, aggregating £1,000. As Gen. Lincoln was fifty-six years old, the rate varies little from the term rate of to-day.

The thrift of the people of Massachusetts and their quick comprehension of whatever may be for the true advantage of themselves and posterity has made the state an ample field for life insurance. Its utility and charitable nature have found a ready response. The first company organized in the state was the Massachusetts Hospital Life Insurance Company. It was given by law the right to do the entire business of life insurance in the state, provided it paid one-third of the profits to the hospital. It is still in existence, but never did much life insurance business and has now no risks on its books. Its business has been mainly devoted to annuities. By act of 1894 it was relieved from the necessity of reporting to the insurance department.

The other life insurance companies are the New England, State, Berkshire, Massachusetts, and John Hancock.

The New England Mutual Life may be said to be the pioneer of life insurance in New England. Although chartered in 1835, it was not until 1844 that it issued its first policy. Commencing with a guarantee capital of \$100,000, it redeemed that amount from its surplus and became purely mutual in 1853.

Judge Willard Phillips was the first president, and on his retirement in 1865 Vice-President B. F. Stevens was chosen his successor and still holds the office. It is quite a remarkable instance in the many changes of business that the executive office of this sterling institution during its career of over half a century has been held by but two men.

The State Mutual Life of Worcester was organized and commenced business in June, 1845. Its first president was Hon John Davis, the distinguished United States senator and ex-governor. Its present president is A. G. Bullock.

The Berkshire Life of Pittsfield was incorporated in 1851. Its president is Wm. R. Plunkett.

The Massachusetts Mutual Life of Springfield was incorporated in 1851. Its guarantee capital was \$100,000. This was redeemed and the stock retired in 1867. Its president is John A. Hall.

The John Hancock Mutual Life was chartered and commenced business in 1862. Its guarantee capital of \$100,000 was retired in 1873. In 1879 it added an industrial branch to its business. This business has developed to great proportions. It was the pioneer of this form of insurance in Massachusetts, and is the only Massachusetts company issuing policies on that plan. Its president is Stephen H. Rhodes, formerly insurance commissioner of Massachusetts.

All the Massachusetts companies are mutual and are in highly prosperous condition. It is a grand record that no Massachusetts Life Insurance Company ever failed.

One of the first legislative acts in regard to life insurance was passed in 1844. It provided that a policy for the benefit of a married woman should inure to her separate use and that of her children, independently of all other persons. This was followed in 1849 by a supplementary act guaranteeing that insurance, made by one party for the benefit of another, should inure to the benefit of such other person in the same manner. In 1855, when the department was organized, the five then existing companies had insurance in force to the amount of \$12,000,000, with assets of \$1,863,095, and a premium reserve estimated by themselves at \$693,961.

But no special attention was given to life insurance statutes until 1858, when Elizur Wright was chairman of the Board of Insurance Commissioners. Mr. Wright was a student and actuary of life insurance, and in his reports gave expression to his views on the doctrine of probabilities, the question of safe and equitable premium reserve, and the surplus from higher rates of interest than was then assumed as a basis of computation. His contention that a lapse of premium should not work an absolute and immediate lapse of the policy was recognized as involving equity and good business principles. His proposition that companies should be compelled to render to the policy-holders a just value in insurance of unexhausted premiums, though for some years strongly opposed, was embodied in what is known as the "Non-Forfeiture Law" of Massachusetts, enacted in 1861. This law provided that the net value of policies should be computed by the "Combined Experience" or "Actuaries" table of mortality, with interest at four per centum. After deducting any indebtedness, four-fifths of this reserve should be used as a net single premium for temporary insurance. In case of decease, the companies would have the right, however, to deduct the amount of forborne premiums with interest at six per cent. The security which this law intended to provide for the future undoubtedly had much to do with the increasing popularity of life insurance. The law obtained a national reputation and soon after its enactment its principles, with some modifications, were adopted by many life companies in recognition of the claim that any policy-holder was entitled

to all the insurance he had paid for. The plan, however, which came into general use, provided for a paid-up policy for an equitable amount given on surrender of the original policy.

Not the least important feature of this law was the legal establishment of a standard of valuation. Previous attempts had been made in England, but had failed on account of their alleged impracticability and the magnitude of the labor. But experience in America has demonstrated the usefulness of this valuation, its feasibility and its equity. The lead that Massachusetts took in this important service has been of great credit to the state, and of great utility to the cause of insurance. The standard which received her sanction has been verified by experience, without the necessity of any modification of its terms or requirements.

Between 1865 and 1875, when the prevailing rates of interest ruled high, and there was no prospect that they would range lower than six per cent., efforts were strenuously made to raise the standard rate, and thus not compel companies to maintain so large reserves. But the Massachusetts department, against many animadversions, as strenuously refused to recommend any such reduction, and upheld the standard as adopted. In view of the rates of interest for the past twenty years, the wisdom of the course of her officials needs no comment.

With the popularity of life insurance as a secure provision in case of death, came the desire for a like provision in case of advanced age, and thus endowment insurance, combining insurance and investment, sprang into being, and has become one of the prominent features of practical life insurance of the day.

With the accumulations of funds by companies beyond the necessities of business, the question of the division of the surplus belonging to the policy-holders became one of considerable importance. Usage and precedent had depended upon the "percentage plan." In a long and able discussion of the subject by the commissioners, they regarded it as a question of equity and right, more than of precedent or convenience. With that view they gave their endorsement of the "contribution plan" of distribution, by which the surplus earned or created by his money was given to each policy-holder. This method seemed to harmonize best with the fundamental principles of life insurance. The "contribution plan" has been adopted by the great life insurance companies of the United States in the annual or periodic distribution of surplus.

It was in 1869 that the so-called Tontine form of insurance was introduced, and became quite popular. With some modifications it was ultimately adopted by most of the leading companies of the country, but by none of the Massachusetts companies. The non-forfeiture law operated against its application by the home companies, as the original plan called for the absolute forfeiture of the policy in case of the lapse of a premium after a specified time. By the Tontine plan the dividends were withheld from apportionment to the respective policies until a certain fixed period, usually ten, fifteen or twenty years, called the Tontine period. At the expiration of that time they were distributed to the surviving policies, and naturally gave promises of large accumulations from this source to the fortunate and persistent policy-holders. In case of decease, the full face of the policy was to be paid, but no accumulations. In case of lapse the reserve went to swell the Tontine fund, to be divided at the end of the respective periods. This form of insurance was violently assailed as a "gamble," as inequitable and contrary to the spirit of life insurance. But while it may have operated to the disadvantage of some unable to prevent policies from lapsing, it has undeniably encouraged persistency on the part of others to reap the full fruition of the objects and hopes of insurance. The scheme was sanctioned by

some of the most eminent actuaries and insurers, and in practice still holds its popularity. The iron-clad features of the plan have been removed, and the lapse of the policy does not work a forfeiture of the reserve value, but only the policy's share of accumulated surplus.

With the surprising annual increase of the business of life insurance, the question began to be raised by officials and those well versed in its theories and principles whether the growth was spasmodic and temporary, or whether it indicated a healthy expansion. Many doubted its permanency—thought it an affair of the day or an expedient, however well grounded and well managed, which might soon lose its popularity and practical application. Wise and conservative writers on economics and the experienced commissioners of Massachusetts expressed their opinion of the futility of any predictions as to the results of its expansion. Each year was thought to mark the flood-tide of its ever-increasing volume, after which the public would behold a recession.

The companies increased, however, in greater ratio than the business, and in 1868 it was shown that one-fifth of all the companies did two-thirds of the new business. The number of companies doing business in Massachusetts was excessive for the business done, and in 1870 reached seventy, which was the highest limit. The original number of state companies was not increased, but the new companies were organized in other states. Many of these companies—badly managed, extravagant in the salaries to officers and their conduct of affairs, organized with no prospect of long continuance, but with baseless hopes of visionary success—disappeared almost as quickly as they had risen. They had succeeded, however, in somewhat demoralizing the public and creating a distrust as to the stability of life insurance. The panic of 1873 naturally completed the work of reducing the number to a normal basis, and in 1875 the number of companies doing business in Massachusetts was forty-one.

The many failures worked great injury besides the losses they involved. The confidence of the public had been impaired, and business necessarily fell off both from that cause and the stringency of the times. Yet the strong companies under careful management really became stronger with the removal of these obstacles to a well-conducted business. The decadence was rather practical than theoretical, and the underlying principles were carried through the storm and survived to encourage those who had experienced the great beneficence of the institution in the days of trial and peril, when their interests had been guarded in safe companies, well managed by able and honest officials.

A combination of savings banks and insurance was a scheme of Mr. Elizur Wright, which, though advocated with great zeal and encouraged with hopes of realization, never was put into operation.

The large sums held as reserve by companies attracted the attention of the tax gatherer, and in 1880 the legislature passed an act levying an excise tax of one-half of one per cent. upon the reserves of all policies held upon residents of Massachusetts. As this tax yielded nearly double the revenue expected, it was, in the next year, reduced to one-quarter of one per cent.

The non-forfeiture law of 1861, though it had been of great benefit to the public, was considered inequitable and ill-adapted to the purposes for which it was formed. Its author was among the foremost for its change. In 1880 it was radically changed. The basis of surrender value was the net value computed according to law, less a surrender charge consisting of eight per cent. of the present value of all normal future costs of insurance. This value was stipulated to be in cash or used as single

net premium to purchase a paid-up policy of the same tenor as the original. Thus, the insurance in force was changed from that of an extended nature for the full amount to that of a paid-up policy to be realized in any event. Any waiver of these provisions by the insured was declared void.

As the operations of the law as to the surrender charge did not bear equitably upon endowment policies, the surrender charge in many cases being insignificantly small, the law was so changed in 1887 as to allow companies to deduct five per cent. from the net value of such policies. But this just provision has since been repealed.

After the rude shock caused by the somewhat speculative organizations of many new and badly managed companies, and the consequent failures and disasters, and, after the trials and hard experience of a panic, the recovery of life insurance and its continued firm hold upon the people was an indication of its sound monetary foundation, of its perpetuity as a great beneficence of the age, of its permanence as one of the institutions which are intimately connected with the home, the love of kindred, and the tenderest emotions of our nature. Its establishment is secure. It is one of the great elements of our social life. Built up on staple foundations, on everlasting principles and mathematical certainties, it is safe beyond the criticism of skeptics or machinations of those who would use it for their selfish purposes.

As a progressive institution, it is constantly marking advances in its beneficial features, in its privileges to the insured, and in its adaptation to the best uses of its patrons. The main obstacle to good management and the best results is the extravagant rivalries of companies for no higher motive than the placing of a great volume of business on the books, without any assurance of its permanent quality as a factor of strength. Then there are the manifold and constantly increasing schemes of insurance under high-sounding names, and manipulations of figures and results to mystify the policy-holder and impose upon his understanding of the relations of insurance with its definite cost, and investment with its inevitable dependence upon the current rates of interest.

A law against any discrimination on account of color was enacted in 1884. As by the mortuary record of the northern states of the Union, it is an established fact that the colored race does not possess the longevity of the white race, life insurance companies, to equalize the burdens of insurance, made an extra premium for colored policy-holders. But the wisdom of legislatures can set at naught the truth of statistics and compel facts to yield to political expediency.

One of the great evils of the practice of life insurance, consequent upon the rates of commission paid agents and their competition for business was the growing custom of dividing commissions with the insured. This custom became a menace to the proper conduct of business, to the equitable distribution of the cost of insurance among policy-holders, and to the just remuneration of faithful agents. It worked a demoralization to all parties interested, the companies, the agents, and the insured. To such an extent was it carried that it became the exception rather than the rule that the new applicant would pay the entire first year's premium. To institute a reform in this method, the so-called anti-rebate law was included in the division and codification of the insurance laws made in 1887. The effect has been most salutary, and though the evil may not be wholly eradicated, it has been driven into a dangerous practice.

In this matter of legislation and regulation, as in many others, Massachusetts was the pioneer, and her example has been followed in many other states of the Union in which anti-rebate laws have been enacted.

The number of regular life companies now doing business in Massachusetts,

including the five state companies, is twenty-nine. These companies have a total insurance, in force, of \$4,795,000,000.

They carry insurance on the lives of Massachusetts residents, amounting to \$287,000,000, with annual premiums of \$10,700,000. Of this amount the state companies carry \$73,000,000 with premiums of \$2,700,000. The Massachusetts companies have in force \$322,000,000, with assets of \$68,000,000 and a surplus of \$6,000,000.

The premium rates have heretofore varied somewhat, but, by mutual agreement of all the Massachusetts companies, uniform rates for the same kinds of policies were established on all new business after January 1, 1896.

About 1880 a kind of life insurance on a smaller scale came into practical operation. It is called industrial or prudential insurance. It is taken in small sums, on children as well as adults, with premiums payable in weekly instalments, and provides more particularly for a burial fund for children, and those in humble circumstances. It has become very popular, and the business of the companies making a specialty of this form of insurance has grown to an immense annual volume. But three companies do business of this kind in Massachusetts—one of these being the John Hancock, which has done an extensive business in this line. Efforts have been made in the legislature without avail to restrict this insurance to certain ages of children.

Co-operative or assessment insurance has played an important part in Massachusetts, in all its various forms. Honestly administered as a form of temporary insurance, at the actual cost from year to year, it is entitled to most respectful consideration. But its dishonest and speculative features have acted as a delusion to the ignorant and well-meaning, and have brought loss and grief to many relying upon its promises. Assessment insurance, under the control of benefit orders, charitable associations and secret-society organizations, honestly and economically managed at a nominal expense, with death or disability payments to members, from periodic or emergency assessments, is the first form of this kind of insurance. These are officially known as benefit insurance societies, or fraternal beneficial associations. From these sprang the business enterprises of an assessment nature, with no bond of union between the insured. They are of strictly commercial character, and, when carried on with little restraint of law, encouraged an irresponsible and adventurous spirit of dealing. They rose, flourished with a fitful existence, and disappeared by scores. The fate of many of them was a gloomy record of misguided hopes and extravagant management. Still, this form of insurance, officially known as assessment life and casualty insurance, was much in vogue, and is still practiced as a cheap and popular insurance.

By provision of law, the charitable and beneficiary associations were exempt from the general laws relating to life insurance companies. By legislative act in 1880, they were simply required to make such statements as might be deemed necessary for an exhibit of their business and standing. This action was deemed precautionary on account of the growth and increasing numbers of these societies, with special reference to conducting a life insurance business. The supervising care of the insurance department was the best guaranty of the honest motives and successful management of associations thus promoted.

The assessment companies which had previously done business, in the absence of definite regulations, considered themselves now legally authorized to operate freely. This form of insurance, which had been growing in popularity, was pursued with vigor. New organizations were created in great numbers, some with a sem-

blance of charitable or brotherhood character about them, and others on the most mercenary principles. The short history of many of these companies or associations, with their paraphernalia of office machinery and paid officials, was so disastrous and reprehensible that the necessity of more wholesome regulations was apparent.

In 1885 a special act, relating to assessment companies, other than those of fraternal character with select membership, formed for the purpose of insurance, was passed, and has served in a great measure to purify the atmosphere of the business and vindicate honest and legitimate assessment insurance before the public. Since this, the number of such companies has decreased, but their character and stability are of a far higher average standing. One of the essential features of this act was the establishment of an emergency fund, to perform in some degree the functions of a reserve.

There are nine assessment life companies in Massachusetts, with insurance in force in Massachusetts amounting to \$63,898,050, and eleven from other states, with an insurance of \$29,624,422.

Over three hundred fraternal companies are in existence with a membership of over eight hundred and fifty thousand, assets of \$2,000,000, and annual losses and claims paid in 1895 of over \$19,000,000.

The most obnoxious offspring of the beneficial insurance laws was the so-called endowment orders. They were a gross and vicious perversion of the motives and principles which prompt the banding together of individuals in charitable and benevolent organizations, with mutual pledges of pecuniary assistance in dire misfortunes. In the name of benevolence, brotherly love, and all the cardinal virtues, schemers played upon the credulity as well as the cupidity of the public, and in face of the law, carried on their nefarious practices to the enrichment of the few and the impoverishment of many. Although these organizations had nothing about them of the nature of insurance, still, from the statute under which they derived their pretended authority, they came under the supervision of the insurance commissioner. And in this connection attention is called to the craze which pervaded the state in their fitful existence.

Under the tenets of the beneficiary orders, by which they paid the benefits on the death of members, the plan was conceived of paying benefits during life on an endowment scheme. The most specious combinations of vital statistics, membership additions and withdrawals, interest realizations with divisions of members to retire at specified terms with stipulated amounts, were concocted to catch the unwary and ignorant and unite those cognizant of the true nature of the game.

The managers and their friends went in on the "ground floor," with the privilege of first withdrawing with their share of the division of funds at a stated period. With the accretions of money from newly-duped novitiates, a second division were in time to share an inordinate return from their investments, and thus, with perpetual renewals, an endless chain of profits must bring from somewhere its generous dispensations. So firm a hold did this delusion have upon many of the credulous and unthinking people of the state, that honest legislators were unable to cope with it. The honest and intelligent counsel and efforts of the insurance commissioner were of no avail. Eminent counsel, once high in official standing, was found to advocate and defend it. The South Sea bubble and the Mississippi schemes were historical types of its extent and character. Religious men and women were not barred by the golden rule from plunging into the fallacious hopes of illicit gain. Young and old, mostly the poor and the humble, thus tempted fortune—the vast majority to have no reward but experience and bitter reflection. The attempted and oft-repeated

comparison with the basis of life insurance was only of transient utility. The height of the endowment craze was from 1888 to 1891, when it naturally worked out its own fallacy, and with the good sense of the legislature, was deprived of its power to do more harm, but not before it had involved the transfer of millions from those who could ill-afford to spare their money to the pockets of adventurers.

Accident and casualty insurance have a strong and legitimate position among the modern appliances for providing for the uncertainties of life. It is conducted both by regular fixed premium companies and by many assessment companies. Of the companies operating in the state, the only Massachusetts companies are on the assessment plan. Twelve of these companies are in operation, and have an insurance of \$73,000,000 in force in the state.

New kinds of insurance to suit the exigencies of the time and serve the public wants are constantly coming into practical use. The bonds of the guaranty and surety companies are now generally preferred to those given by individuals. The titles to real estate are protected by the title companies, of which there are two incorporated. Employers' liability, steam boilers, plate glass, are among the specialties now covered by the provisions of organized companies. Every year records new objects and methods for extending the beneficent attributes of insurance in its many forms.

MASSACHUSETTS INSURANCE DEPARTMENT.—It has been previously noted that the Massachusetts insurance department was organized in 1855—the first department of its kind in the United States. Its history and usefulness have fully justified its establishment. It has been of incalculable value to the material interests and the insuring public of the commonwealth. As the medium between the companies and the policy-holders, it has justly guarded the interests of all parties. Its existence of forty years has been marked by the intelligence, vigilance, justice and honesty of its officials. As guardian of ever-increasing millions, accumulated against the property and lives of our people, it has been faithful and honorable in its trust. With undiminished confidence, the people depend upon its management of that great institution of insurance which is recognized as one of the great necessities of civilization.

The act for its establishment first provided for a board of three commissioners, who should administer the affairs of a regularly-organized insurance department, with enlarged jurisdiction. It required that a majority of the board should inspect and examine every insurance company incorporated by authority of the commonwealth at least once in two years, and see that all foreign companies comply with the laws of the state. In 1858 the board was reduced to two commissioners. It was at this period, and subsequently for some years, that Elizur Wright was chairman. In 1866 the department was further reorganized by the reduction of the commissioners to one, with the additional provision for a deputy-commissioner authorized in 1871, and this organization has been maintained until the present day.

INSURANCE COMMISSIONERS SINCE THE ORGANIZATION OF THE DEPARTMENT.

Augustus O. Brewster	1855-1856	George W. Sargent	1858-1866
Nathaniel K. Allen	1855-1857	John E. Sanford	1866-1869
Charles L. Putnam	1855-1856	Julius L. Clarke	1869-1875
Elihu C. Baker.	1856-1858	Stephen H. Rhodes	1875-1879
John Field	1856-1858	Julius L. Clarke	1879-1883
George T. Stearns	1857-1858	John K. Tarbox	1883-1887
Elizur Wright	1858-1866	George S. Merrill	1887

DEPUTY-COMMISSIONERS.

George W. Sargent . . . 1871-1872	George H. Long . . . 1876-1877
Stephen H. Rhodes . . . 1872-1875	William S. Smith . . . 1877-1895
Benjamin C. Dean . . . 1875-1876	Frederick L. Cutting . . . 1895

ASSOCIATIONS, ETC.—There are a number of organizations and associations formed and conducted in the interests of different branches of insurance. They serve to diffuse information in regard to the business, and to co-operate in all that pertains to the mutual relations between the companies and the public through the agents who are the medium of their intercourse.

The Boston Fire Underwriters' Union was formed in 1872. Although the organization is still kept up, its duties are mainly performed by the Board of Fire Underwriters. George P. Field is president, and Osborne Howes secretary.

The Boston Board of Fire Underwriters was organized in 1882. It is the rating board of Boston. A. M. Bullard is president, and Osborne Howes secretary.

The Boston Board of Marine Underwriters was organized in 1850. It has its agents in all parts of the world. Edmund A. Poole is president, and George Amerige secretary.

Boston Board of Fire Insurance Brokers, E. D. Blake, president, and C. H. Hayes secretary.

The Insurance Library Association of Boston is a society incorporated in 1887, maintaining a library more particularly for those interested in fire insurance. Maps, books and literature pertaining to the business are kept at the rooms which are in charge of a librarian, and are kept open on all business days of the year. It has a large and well-selected library. F. B. Carpenter is president.

The New England Insurance Exchange was organized by special agents of fire insurance companies in 1883. It is a rating and supervising organization and has brought about practical order and cohesion in rates in New England. Membership in the exchange is open to all engaged in field work of any fire company in New England. Wm. H. Smith, of the Insurance Company of North America, is president, and C. M. Goddard secretary.

Local boards and organizations of different kinds are established in many of the larger cities and towns.

The Boston Life Underwriters' Association is the first organization of its kind in this country in successful development. As an experiment in bringing together in bonds of social friendship and harmonious business relations the competing agents of rival companies, the result has been most satisfactory. The idea was conceived by Col. C. M. Ransom, of the *Boston Standard*, and the organization was made in 1883. Cornelius G. Atwood was the first president, and George N. Carpenter secretary. The movement extended to the principal cities of the Union, and similar associations on the same basis were formed. Stimulated by their success in their localities, the representatives of the different associations met in convention and organized in Boston, in 1890, the National Association of Life Underwriters.

C. D. Hammer is the president of the Boston Association, and F. C. Sanborn secretary.

The Life Underwriters' Association, of Western Massachusetts, was organized in 1894, with J. L. Johnson as president. It has been active and prosperous in its work in that section of the state. George H. Sutton is president, and William L. Richards secretary.

While many of the leading commercial papers have special departments relating to insurance, some papers have been established devoted quite exclusively to insurance interests. The magnitude of the business demands special information and talent in intelligent treatment of the subject. The first insurance journal in Massachusetts was the *New England Insurance Gazette*, a monthly periodical published in Boston by William Hadden. Its first issue was in 1861. The *Index*, also a monthly, commenced its publication about 1870. Its name was changed to the *Standard* in 1872, and its publication was changed to weekly. Col. C. N. Ransom is the editor. The *Standard* devotes its columns exclusively to intelligent discussion and general information on all kinds of insurance, and matters pertaining to that interest. It has a woman's department, encouraging the active participation of women in life insurance, as policy-holders and solicitors.

The *Guardian*, a monthly journal, devoted more especially to the interests of assessment insurance, commenced publication in 1883. George D. Eldridge is the editor.

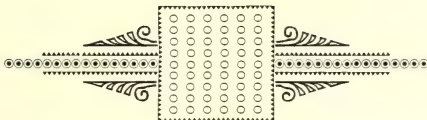
Massachusetts has never been aggressive in its legislation, or in its general policy towards the insurance companies of other states, but when those states impose obligations upon the companies of the state in excess of the obligations imposed by Massachusetts on foreign companies, the statute provides for retaliation in kind. Such a statute, though opposed by some commissioners, was enacted and is enforced in no vindictive spirit, but is a necessary and precautionary measure for the protection of the companies and agents of the commonwealth against narrow and restrictive laws, which often mark the work of our different state legislatures.

Litigation regarding insurance, especially marine and life, is comparatively slight. The decisions by juries, but to larger extent by courts, have established precedents and effected settlements, by which in later times, controversies have been easily adjusted without resort to law. A system of insurance jurisprudence has thus been quietly and almost imperceptibly instituted with a result highly conducive to the benefit of the community. Questions which in earlier days, when the business was new and crude, were the subjects of differences, need not necessarily be carried beyond the insurance office for definite and satisfactory determination. Nearly every legal point of any account has been determined in analogous or similar cases, and the uncontested decision is accepted by company and insured. In Fire Insurance are more questions of fact as well as law, which cannot be so easily settled as in cases of life and marine. But the methods of the conduct of business and the spirit of conciliation tend to more and more harmonize the relations between the insured and the companies.

By its scientific principles and practical business management, by the means of extensive corporations and their agents, by the press and the literature adapted to its peculiar requirements, this great enterprise has attained a high position in the economics of the century. It is identified with all the lines of human activity. In its varied plans and schemes of indemnity it serves to ameliorate the condition of mankind, not only in the protection it affords to commerce and industry against the perils of the sea and the disasters of fire, but in the relief it carries in its beneficent method to the firesides and homes of the land. Though it cannot restore the treasures hopelessly lost, nor compensate for their more than intrinsic value, it can distribute almost infinitely the burdens of mere material loss. Though it can make but feeble amends for the misfortune of death, it can indemnify for the value of a human life as an element of support to a family or as an essential member of a business association.

It is constantly enlarging its scope and extending the range of its useful application. With the progress of development and the adaptation of new appliances of force and convenience, insurance will keep pace, as an auxiliary, in all that comes within the sphere of its action. As a handmaid of civilization, it will continue to serve the cause of the world's best energies and practical efforts for the benefit of mankind.

The history of insurance in Massachusetts is but a part of the general features of its history throughout the other states of the Union. The record is that of one of the mighty agencies which have made the century memorable. We cannot forecast the results of another century, but we can feel assured that with all its faults and failures insurance will continue to shed its blessings and beneficences upon those who seek its protection.



CHAPTER CXLI.

THE SAVINGS BANK SYSTEM IN MASSACHUSETTS.

BY CHARLES A. CHASE,

Treasurer of Worcester County Institution for Savings.

"A penny saved is two pence earned," said Poor Richard.



WHETHER this aphorism, uttered by Franklin, was an idea typical of the thoughts and nature of a child of Massachusetts, or whether because of its utterance the people of this commonwealth have been led to practice the habit of frugality, the fact remains that the visible savings of the inhabitants of this state exceed, on the average, those of any other community in the world.

The great value of a savings bank, conducted according to the principles which the experience of men and the wisdom of legislators have determined to be correct, is impossible to be measured. Not only does it inculcate and encourage the habit of saving among the people in its neighborhood; but the accumulation of money, which would otherwise be dissipated or hoarded, furnishes a fund which may be drawn upon in the form of loans upon mortgages, or may be invested in aid of internal improvements which go to increase the comfort and the prosperity of the whole community.

The American people emerged from the great struggle which secured their independence, impoverished and discouraged. Before they were fairly upon their feet a second war with Great Britain furnished another set-back. Fortunately for the nation there were men of that time who combined philanthropy with patriotism; and while they aimed to establish a system of government founded on justice and equity, they were not unmindful of such schemes as would directly promote the welfare of the people, conscious that in this must rest the stability of the country itself.

The establishment of Savings Banks in America was contemporaneous with their first creation in Great Britain, where, although "societies" having the same end in view had existed for several years, they were not recognized by Parliament until the year 1817, which was really after the first charter had been granted in Massachusetts. Although independent of Great Britain in a physical sense, we were not too proud to take advice of the leading minds of that nation; and the nature and benefits of this new philanthropic institution had been the subject of correspondence between such men as James Savage of Boston, Thomas Eddy of New York, and Condé Raguet of Philadelphia on one side, and Patrick Colquhoun of London on the other. The last named gentleman claimed that the idea of Savings Banks on a systematic plan, in place of voluntary charitable societies, originated with himself, and was first broached in his "Treatise on Indigence" in the year 1806.

While the first American charter to a Savings Bank was granted by Massachusetts—to the “Provident Institution for Savings in the town of Boston”—December 13, 1816, a voluntary association, called the Philadelphia Savings Fund Society, began business in the last-named city on the second day of the same month. The latter society followed the voluntary system in vogue in Great Britain, but afterwards adopted the corporate form, and received a charter from the state on February 25, 1819. The Salem (Mass.) Institution for Savings was chartered January 29, 1818. In December, 1818, the legislature of Maryland incorporated the Savings Bank of Baltimore, which is therefore the third in age of these institutions, however called, now existing in this country. “The Bank of Savings in the city of New York” was incorporated March 26, 1819; “The Society for Savings in the City of Hartford, Conn.,” June 1, 1819; “The Savings Bank of Newport, R. I.,” in the same month; “The Portsmouth Savings Bank, New Hampshire,” June 26, 1823. The first charter for Maine was granted by the Massachusetts legislature, when Maine was a district of the latter state, to the Institution for Savings in the town of Portland and vicinity, in June, 1819; but this bank and the Provident Institution for Savings in the town of Hallowell and vicinity, chartered February 21, 1820, were never organized.

It is curious to note that the state of Vermont, with about the same population as New Hampshire, from which it is only separated by the Connecticut river, had no savings bank until the year 1845, twenty-three years after the establishment of such an institution at Portsmouth, N. H. The explanation of this must be found in the fact that the population of Vermont has been chiefly devoted to agriculture, with few cities or large towns offering a sufficient number of wage-earners to constitute the nucleus of a savings bank.

While the wisdom and great utility of the savings bank system were at once recognized by the more intelligent portion of the community, it was essential that the lesson should be learned by the class which it was especially intended to benefit; that the wage-earners and people of limited incomes should be taught the advantages of saving, and the convenience therefor which the new institutions offered. This was accomplished in part by articles in the newspapers, in a limited degree by the private exertions of the projectors in personal interviews with those around them, and to a considerable extent by the printed prefaces to the pass-books issued to depositors, which would naturally be exhibited to their friends. When these books went to the bank a second time, the generous dividend which was added, surprised and delighted the depositor, and proved a convincing witness of the advantage of the new system. The prefaces of the earlier books, which have formed a model for all subsequent time, were in substance like the following:

The design of this institution is to afford to those who are desirous of saving their money, but who have not acquired sufficient to purchase a share in the banks, or a sum in public stocks, the means of employing their money to advantage without running the risk of losing it, as they are too frequently exposed to do, by lending it to individuals who may either fail or defraud them. It is intended to encourage the industrious and prudent, and to induce those who have not hitherto been such, to lessen their unnecessary expenses, and to save and lay by something for a period of life when they will be less able to earn a support. To promote these desirable purposes, the following rules, among others, have been adopted:

Deposits, or monies put in, will be received as low as one dollar, and when any person's deposits or payments shall amount to five dollars, they will be put upon interest.

Business will be done at the office on Wednesday of each week, from two o'clock to five. This is to save expense to those who put in their money, who would otherwise be obliged to pay more for the time of the clerks, if they were to attend every day.

Twice every year, namely, on the third Wednesday of every July and January, a dividend or payment of interest of two per cent., or two dollars on a hundred, will be made. This will amount to four dollars on every hundred every year, and so a proportionable sum for any sum less or more than one hundred dollars.

Although only four per cent. is promised yearly, yet every fifth year all the extra income, which has not before been paid and divided, will then be divided in just proportion to the length of time the money has been in, according to the by-laws; and nothing will be deducted from this extra income, but the actual expenses paid for carrying on the business and taking care of the money.

The Trustees receive no emolument or pay for their service, having undertaken it solely to promote the interest of the persons above described, who may put their money therein.

Those who do not choose to take their interest from time to time may be assured that it shall be added to their capital or sum put in, and shall be put upon interest after three months. Thus they will get compound interest on what they let remain, which they cannot do in any other way by law. The depositors, it will be seen, have this benefit without the trouble and hazard of making a re-investment. The difference between simple and compound interest for a short period is not so susceptible, but when permitted to accumulate for ages it amounts to a sum almost incredible. For example, if one cent had been put on simple interest at the commencement of the Christian era, it would amount to but little more than a dollar; but at compound interest it would accumulate to a sum greater than could be contained in six millions of globes, each equal in magnitude to our earth, and all of solid gold. The truth of this may be tested by any person conversant in the use of arithmetic. It is plain that this Institution and this mode of placing money will be safer than lending it to individuals.

But people may become sick, or otherwise want their money after they have put it in. It is provided that any money may be withdrawn on the first Wednesday of January, April, July, or October, and the Treasurer may pay to any Depositor who applies on any other day for his Interest or Capital, or any part thereof, if the money received on that day shall be sufficient, and one week's notice be given.

Money put in will be entered in a book of the Corporation, and also in a book to be given to those who put it in. This book will be the evidence of their property, and as valid as a note of hand.

When monies are called out, this book must be brought to the office to have the payment entered. If not called for by the Depositor personally, a written order, properly witnessed, must be sent addressed to the Treasurer, and accompanied by the book.

If persons die, who own money in the Savings Bank, the money will go to their heirs, or persons to whom they have given it by will, with certainty. It cannot be placed where it will be more safe, as it respects the honor and fidelity of management.

Persons who put in money must sign the rules and agree to conform to them. This is necessary for the security of all parties.

When the amount of the deposits of any individual shall exceed \$500, the Trustees have a right to require the excess to be withdrawn whenever they may deem it expedient.

Monies may be deposited by any person for the benefit of any minor or other person. Such deposit is deemed a gift to the person for whose benefit it is deposited, and cannot be withdrawn except by such person; or if a minor, by a guardian legally appointed.

This plan will be particularly useful to persons who come in possession of money received by way of wages, or gifts and gratuities, for which they have no immediate use, and which they wish to lay by for a rainy day.

Widows and children may also in this way be provided for.

A young man intending to marry at a future day, and young women who may expect to change their condition, can here safely lay up a sum against a time when they may want it more.

Deposits made at any time between the quarters ending on the third Wednesday of January, April, July and October, will be put on interest on the third Wednesday of the quarter succeeding the deposit. The reason is, that it would be impracticable to compute interest on numerous deposits unless it is made to commence from a few fixed periods.

The names which were first given to these institutions are suggestive. In Eng-

land, where they were a development of existing charities, they were called societies. In this country the word bank suggested a private corporation, established rather for the benefit of manufacturers and traders than for the wage-earners. So we see that the projectors of the first savings bank in this state called it a "Provident Institution for Savings," which would certainly indicate that it was something different from anything existing before. Of the twenty-four savings banks chartered here prior to the year 1834, all but the last one took the name of "Institution for Savings." The third and fifth were to be established in Portland and Hallowell, both in the district of Maine, but neither of them was organized. In New York, to be sure, the first bank of the kind was named the "Bank for Savings;" but that in Connecticut was called the "Society for Savings," and the name society is relatively as common there as is the word institution in Massachusetts. In Pennsylvania, the first four were called Savings Fund Societies. To show the slow growth of the system in that state, the fourth of these was not chartered until 1854, about thirty-five years after the incorporation of the Philadelphia Savings Fund Society. The claim that this society is the oldest savings bank in this country is based upon the fact that it was organized as a voluntary association in 1816. But as a chartered institution it stands fourth in order, coming after the Savings Bank of Baltimore, chartered in December, 1818.

The gentlemen who established the Provident Institution for Savings in the town of Boston, were not only philanthropists, but were practical business men. The legislature placed full confidence in their wisdom, prudence and integrity, and, in granting them a charter, the only requirement was that the deposits should be used and improved to the best advantage, and the income applied and divided among depositors in just proportion, with such reasonable deductions for expenses as should be necessary, and the principal to be withdrawn at such times and in such manner as the "society" should direct and appoint.

The early charters were generally unlimited. Those of the Springfield Institution and the Lowell Institution were at first granted for thirty years, but were afterwards made perpetual. It was not until 1833, when the Savings Bank for Seamen, in the city of Boston (now called the Suffolk Savings Bank), was chartered, that any restriction was imposed upon the mode of investing funds, and this restriction was as severe as those which had been imposed in New York from the outset, fourteen years before. It was to the effect that the deposits might be invested in any public stocks, created under any law of the United States, or of this state, or loaned on promissory notes secured by a pledge of such stocks, at not more than ninety per cent. of their par value; and no part of the deposits should be invested in any other manner, or loaned upon any other securities. This was novel legislation, which led the way to a general act for the regulation of "savings banks or institutions for saving," passed by the legislature in the following year (1834), an act which, while it granted more power to the Savings Bank for Seamen, restricted, as afterwards proved the case, the powers before enjoyed by the older banks, and imposed salutary restrictions upon such as should be thereafter chartered.

The act of 1834 allowed the deposits to be invested in the stock of any bank incorporated by a law of this commonwealth or of the United States, not to exceed one-half the capital of such bank; or to be deposited in any such bank on time and interest; or to be invested in bonds or notes, with the stock of such bank pledged as collateral, at not more than ninety per cent. of its market value; or invested in mortgages of real estate to an amount not exceeding three-quarters of the aggregate deposits; or be invested in the public funds of this commonwealth or of the United

States, either directly or as collateral ; or in loans to any city, town or county in this commonwealth. This act is the foundation of the existing legislation upon the subject, modified, always in a conservative spirit, to keep up with the growth of the institutions and with the changed conditions of the country, and the creation of new enterprises, especially the great development of our railroad system.

Some of the early Savings Banks charters contained the provision that the legislature might make such further regulations for their government as might seem expedient. But four of the earliest ones, as we have hinted, put no restrictions on the action of the bank managers. Such managers, not unnaturally, treated the act of 1834 as *ex post facto* in its nature, and did not consider themselves bound by its provisions. But it seemed most desirable that there should be but one system for the government and management of these institutions, and so the State Senate of Massachusetts, near the close of its session in 1852, submitted to the Supreme Judicial Court the question whether the Provident Institution for Savings, chartered in 1816, was subject to the general laws of the commonwealth relating to Savings Banks and Institutions for Savings passed since the granting of its charter. The justices of the court, with due deference to the senate, expressed regret that they should be called upon to express an *ex parte* opinion, much preferring that the question should come before them in the regular course of judicial proceedings, when all the arguments, *pro* and *con*, might be presented. But inasmuch as the legislature was about to adjourn and the senate was in haste to receive an answer, the justices joined in signing an "opinion" to the effect that while, in general terms, acts of incorporation passed prior to the passage of an act of March, 1831, providing that any acts of incorporation subsequent to that act might be altered, amended or repealed, could not be so altered, amended or repealed, yet the corporations created by such previous acts were nevertheless subject to the general laws of the legislature which are not inconsistent with and do not violate any of the provisions of their particular acts of incorporation. The opinion, which is very full and written with evident great care and caution, confines itself particularly to that portion of the general laws relating to investments, and declares that there is nothing in the charter of the Provident Institution to exempt it from the provisions of general laws prescribing the modes of investment by Savings Banks.*

The powers of Savings Banks in this state, in the matter of investments, would seem to be as broad as is consistent with safety to themselves and protection to their depositors, two things which are really the same. It is hard for the people to understand that a Savings Bank, in this part of the country, is not a corporation having interests of its own, apart from those of its depositors, but is only a trustee for the depositors themselves, receiving their money for investment and paying back to them all the earnings less only the expenses of maintenance and the reservation of a trifle to constitute the guaranty fund which the law requires to be created and maintained. People speak of the bank as gaining money by the withdrawal of deposits just before the dividend day, or in other ways, when it is the whole body of depositors who gain what an individual loses. It was quite a current belief among people who were otherwise well informed, that a building erected a few years ago for the use of a Savings Bank in Boston was built with the money of depositors who would never be heard from—the fact being, of course, that it was built with money deposited during its erection, and that all the accounts of depositors, whether dead or alive, if they have not been legally closed by the action of the depositors or their represen-

* Cushing's Report, 9, 604.

tatives, stand open upon the bank ledgers to-day, subject to withdrawal at any moment. It is rare, indeed, that the death of a depositor is not soon followed by a visit to the bank by the heirs, or some person acting in their interest. The finding of the pass-book is evidence of a deposit, for on the closing of an account, the book is retained at the bank. There are, of course, instances where depositors may die and no trace of their book be found, but generally the curiosity of the heirs will unearth the account at the bank, and payment will be obtained under due form of law. The great proportion of unclaimed accounts will be found in the banks of sea-ports, belonging to sailors, who have made a deposit and then lost the book and forgotten that they had one, or have taken it with them on a voyage from which they never returned. The banks are required by law to publish, every five years, a list of all accounts which have been unclaimed for twenty years, with the names of the depositors, unless the depositor is known to be living, or the amount of the account is under \$25. There is no provision of law as yet for turning such accounts over to the commonwealth, and as the total amount of such unclaimed deposits is but a small percentage of the aggregate, it does not seem that any legislation to that end is as yet expedient or necessary.

These institutions were of course feeble in their infancy. It required time to teach the people the benefit which they could derive from using the banks, and from the moderate wages in the early part of this century the savings must at first be small. The expenses must not be out of proportion to the business done, and it would be fortunate for banks established at the present day if this rule could be observed. The original by-laws of one of the oldest Savings Institutions in the state—now the largest outside of Boston—required that the treasurer should keep his "office" open every Wednesday from 2 until 5 o'clock P. M. Three of the trustees were required to attend at the office every Thursday, to examine the journal of receipts and see that the same were duly entered in the ledger; and also the receipts for payments, and ascertain the balance of moneys and where the same were deposited, and lodge a written report with the treasurer for his justification. As business increased, the banks were open oftener. In some cases a day was reserved on which the bank was closed to allow the books to be posted, or for other reasons. In one instance the treasurer was accustomed to go to Boston on Wednesdays, to carry money or to make investments, and the bank continued to be closed on Wednesdays until long after the deposits had run up to millions, and it had a staff of clerks large and competent enough to run it in the treasurer's absence.

As the volume of deposits in the Savings Banks increased, keen-scented tax-gatherers discovered that a considerable amount of money was thus escaping taxation, and legislation was secured in 1849, 1851, and 1852, with a view to bringing the larger deposits under taxation. It was provided that the treasurer of every savings bank should, early in May, make a return to the assessors of each city and town in the state, in which he had reason to believe that a depositor or borrower on collateral was resident on the first day of that month, of the names of all depositors so resident having deposits amounting to \$500 or more, with the amounts standing to their credit; and the names of such borrowers so resident, with the number of shares, denomination, and par value of pledged stock; and, further, upon the written request of an assessor, founded upon the vote of his city or town, he should inform such assessor of the amount of deposit exceeding two hundred dollars, belonging to a resident of such city or town.

It will be seen by the above, that while the deposits of citizens of this commonwealth were thus exposed to taxation, there was no provision for taxing those of

non-residents. Money was coming into the banks from inhabitants of the neighboring states, and from persons who had removed from Massachusetts to other parts of the country. The assessors and the Legislature were equal to the emergency. An act was passed in 1862, "to levy taxes on certain Insurance Companies and on Depositors in Savings Banks." This required every Savings Bank to pay to the treasurer of the commonwealth a tax "on account of its depositors," of one-half of one per cent. on the amount of its deposits, to be assessed one-half on the average amount for six months previous to May 1st., and one-half on such average for the other six months. The banks were exempt from making the returns to assessors, as previously required, and their depositors were to be exempt from further taxation. An act passed in the following year (this was in war times) increased the tax from one-half to three-quarters of one per cent. In the following year (1864), an act was passed levying a state tax upon certain corporations, and the Savings Banks were allowed a rebate of their proportionate share of the tax assessed upon any bank in which they held stock. (The existing provision of law upon this subject is less liberal.) In 1865, the state tax was reduced to one-half of one per cent., but was raised again to three-quarters in 1868, and lowered to one-half, which is the present rate, in 1881.

The law of 1862, above quoted, covered the entire deposits, without regard to the amounts held by individual depositors or their residence. From its sweeping nature, it was evidently felt that it would add at least as much, and probably more, to the public revenue than had been derived under previous legislation. The deposits would average less than \$500 each, and one-half of one per cent. on the total would certainly be more than the taxed depositors had paid before.

But the law of 1862 was not readily accepted by the banks. They argued that it was a new departure in legislation, after Savings Banks had been in existence for nearly fifty years; that it was a tax upon the property of their depositors, and that taxes upon property must be levied upon and paid by the owners thereof. To make a test case, the Boston Five Cents Savings Bank refused to pay the tax, and the treasurer and receiver-general of the commonwealth applied to the Supreme Judicial Court for an injunction upon the bank until the tax should be paid. A temporary injunction was granted, and the bank appealed to the full bench. The court gave a very full opinion, delivered by Chief Justice Bigelow, that the tax was not laid upon the business or property of the bank, but upon its franchise, the value of its franchise to be determined by the extent of its business or the amount of deposits which it held at certain times.*

But the state and the banks were soon to come in conflict again. The exigencies of the War of the Rebellion compelled the national government to issue an immense volume of bonds, and these were heavily purchased by Savings Banks, patriotism and wisdom both inciting thereto. On November 1, 1864, out of a total deposit of sixty-two and a half millions in the Savings Banks, over twenty-two millions was invested in "public funds," of which the largest portion was in United States bonds. These bonds were "non-taxable." They bore upon their face some such legend as this: "The principal and interest are exempt from the payment of all taxes or duties "of the United States, as well as from taxation *in any form*, by or under state, "municipal or local authority." In making up their returns to the state for taxation, therefore, the treasurers very naturally deducted from the amount of their average deposits the amount invested in United States bonds. But this the commonwealth would not allow. It wanted the full pound of flesh, with no parings, and went to the Supreme Court to get it. In the case, *Commonwealth vs. Provident*

* Allen's Reports, V. 428.

Institution for Savings,* the court ruled that, "although a Savings Bank has invested a "portion of its funds in United States securities, the tax imposed by the "statutes of 1862, c. 224, and 1863, c. 164, may be assessed upon the whole average "amount of its deposits as therein provided, and may be collected in full." This decision of the court rested upon its former decision, which was again cited, that the tax is solely on the franchise, and not upon any valuation of the property of the bank. The bank turned for relief to the Supreme Court of the United States, thinking that the promise of the government would be sustained and enforced by its chief court of judicature. But they were disappointed.

The same question was already before the court, on appeals from the Society for Savings at Hartford, Conn., and also from certain manufacturing corporations which had invested a part of their surplus in government bonds. The court here also ruled† in precisely the same way that had been ruled by the Massachusetts court, citing the cases of the two Boston banks from the Massachusetts decisions, and reaffirming the principles therein laid down. From this ruling the chief justice and Justices Grier and Miller dissented, on the ground (for which the banks had contended), that the tax was a tax on the property, and not on the franchise and privilege of the banks. Of course the decision of the majority governed, and the Savings Banks of this state have not been allowed any deduction from their tax on account of their investments in United States securities. The decision of the court is law and may be entirely just, but it takes away much of the desirability of these securities as an investment, and if "jingoism" should ever involve us in another war which should make necessary another large issue of bonds, the Savings Banks would not be so eager to invest in them as the government might wish. It may be mentioned that most of the states which levy a tax on Savings Banks exempt their holdings in government securities. The state of New York does not tax these banks at all.

The cautious wisdom and wise caution of successive legislatures of Massachusetts have evolved a system of regulations for the management of Savings Banks which may well serve as a model for the world. The amount of deposits which may be received from any one person is \$1,000 only; but dividends may be added, with dividends upon the accumulation, until the aggregate reaches \$1,600. Every depositor whose account has risen above the last-named sum must be notified by mail of the fact within six months, and once in five years a list must be advertised of those who for two years previously have not been entitled to interest on the full amount of their accounts. Every five years, also, the treasurer must return to the bank commissioners, and also advertise a list of all depositors who have neither added to nor withdrawn any sum from their accounts during twenty years preceding, unless the depositor is known to be living or unless the amount is under \$25. Deposits and income may be invested in first mortgages on real estate *lying within this commonwealth*, to an amount not exceeding sixty per cent. of the value thereof, and to an aggregate not exceeding seventy per cent. of the whole amount of deposits; and in the case of every such loan at least two members of the board of investment must certify in writing to the value of the property mortgaged, according to their best judgment.

Other investments include: The bonds of the United States, of any of the New England states, of all the states north of Mason and Dixon's line (except New Jersey), and east of the Mississippi river, of Minnesota, Missouri and the District of

* Allen, XII., 312.

† Wallace VI. 611 *et seqq.*

Columbia, of any county and town in the New England states and of cities in the above-named other states, with certain restrictions as to population and the percentage of net indebtedness (exclusive of water debt) to the valuation. Also, in the bonds of certain railroads in the New England states; in the stock of national banks in New England, of banks and certain trust companies or safe deposit companies incorporated and doing business in this commonwealth, to a limited extent; and in real estate for banking purposes to an amount not exceeding five per cent. of the deposits, but not exceeding \$200,000; in loans on personal security, where the principal and at least two securities are citizens of the commonwealth; in loans on stock of such New England railroads not leased (but not including street railways), as have paid regular dividends of not less than five per cent. for five years preceding the date of the note; in loans upon such public funds, railroad bonds and bank stock as they are allowed to own; and in loans to depositors with the pledge of the pass-book to an amount not greater than one-half of the deposit. They may make deposits of their uninvested money in the banks or trust companies in this state, of which they are allowed to hold stock, to an amount not exceeding five per cent. of total deposits in any such bank or trust company, such deposits not to exceed in amount twenty-five per cent. of the capital and surplus of the depository.

It will be seen by the foregoing that the great trusts held by the savings banks are carefully guarded by the commonwealth. As long as there was but one bank, and that in "the town of Boston," full liberty might safely be granted to its managers. But now, with savings banks established all over the commonwealth, it would be impossible to secure boards of investment in every case which would have the knowledge of affairs requisite to secure safety, unless fixed rules were laid down for their guidance. The speculator who attempts to gamble by buying a large tract of unimproved land with money borrowed from the banks, cannot foist his own claim as to its value upon the bank managers; the plausible negotiator of mortgages upon farms of "populists," which are submerged in water or devastated by grasshoppers, must go to other states than ours to peddle his worthless wares. The stocks of gas and water companies in distant states, about the management of which nothing can be known here, may be sold in other parts of New England, but not in Massachusetts. Here we can hold no corporation stock at all but that of state banks in Massachusetts or national banks in New England, and we can base no loans upon any stock but these, or that of a few of the New England railroads. The limitation of mortgages to our own state seems a narrow one, but it has kept our banks prosperous and solvent, while others elsewhere have gone down because of their unfortunate investments in mortgages far away from home. It seems impossible to teach the great mass of those who have money, and of many who manage it, that a low income attends absolute safety of investment, and that the offer of a high rate of interest almost invariably means the jeopardy, if not the total loss, of the principal. And strict enactments of law are necessary to hold the managers of public trusts within the path of safety.

The state of New York has ever been most conservative in its legislation concerning savings banks, carrying this virtue even to excess. Thus the "Bank for Savings in the City of New York," when it received its charter in 1819, instead of enjoying the same liberty which had been granted in Massachusetts, was limited in its investments to government securities, or "stock" (*i. e.*, bonds) issued by the United States or the state of New York. An application to the legislature in 1820 for leave to loan upon mortgages on property in New York city was refused, but leave was granted to loan to the city of New York at a rate of interest not less than

six per cent. In 1827 the Bank for Savings was authorized to purchase the state "stock" of Ohio, and the Albany Savings Bank was authorized to buy the stock of banks in that city. In 1830 the Bank for Savings was allowed to buy the stock of any state in the Union, and to loan to the Public School Society of New York city upon satisfactory "real security." Loans on "bond and mortgage" were first granted, in New York, in 1831, to the Poughkeepsie Savings Bank, a privilege afterwards granted to the other banks; and gradually the banks were allowed to hold the bonds of the cities, towns and counties of the state of New York. It is only within a very few years that the New York savings banks have been permitted to buy the bonds of any city outside of the state. The permission first granted, included some half-dozen of the chief cities of Massachusetts, Rhode Island and Connecticut, and caused an immediate rise in the market value of the bonds of those cities. A few more cities, specified by name, have since been added, with the result that on Jan. 1, 1897, the 4 per cent. bonds of Massachusetts cities which can be purchased by the New York savings banks are offered by brokers at a price yielding from 3.3 to 3.4 per cent., while perfectly good bonds of cities in the same state, not so purchasable, are marked at 3.55 per cent. Something similar to this has followed the enlargement of the privileges of Massachusetts savings banks. As one western city after another has been admitted to the banks in this state, the market value of its bonds has risen to about the same value with those of our own cities and towns. A shrewd board of investment will hardly recognize such a parity of value. An intelligent trustee or investor will not acknowledge that any municipal bond issued outside of the old Bay State is in every way so good as those which are based upon the wealth and prosperity of a city or town of Massachusetts, and, above all, upon the integrity of its people.

The Savings Banks of Massachusetts were first put under the direct supervision of the state by an act passed in 1835, establishing a Board of Bank Commissioners, who were to visit the Banks of Discount and the Savings Banks periodically, and examine and report upon their condition. This act was repealed in 1843, but another law was passed in 1846, requiring the treasurer of each Savings Bank to annually make return to the secretary of the commonwealth of the condition thereof as it was at the close of business on the last Saturday of some preceding month, to be designated by the governor. These returns were similar to, though not so full as those now required, and were to be sworn to by five or more trustees as well as the treasurer. In 1851 a Board of Bank Commissioners was established, to consist of three persons to serve for three years, with a provision for rotation. These commissioners, or any two of them, were required to visit every bank of discount and every Savings Bank in the state at least once in two years, with full power to make a thorough inspection of all the affairs of the corporations; and to keep a full record of their proceedings, including a statement of the condition of each bank, making a report in December of each year to the secretary of the commonwealth of the general conduct and conditions of the banks visited, with such suggestions as should seem expedient. The first board, consisting of Solomon Lincoln, Peter T. Homer and Samuel Phillips, made an admirable, exhaustive report in December, 1851. They had examined twenty-seven out of one hundred and thirty-seven banks of circulation and twenty-seven of the forty-nine Savings Banks. Of the former class, the thirty-two banks in Boston had a capital of \$24,460,000, and one hundred and five outside of Boston had \$15,360,000. The forty-nine Savings Banks in the state had eighty-six thousand five hundred and thirty-seven depositors, against twenty-four thousand two hundred and fifty-six in the institutions existing in 1834; with \$15,554,089 deposits, against

\$3,407,773 in 1834. It is worthy of notice that at least three Savings Banks in this state (all in Boston) have each a larger deposit to-day than was held by the forty-nine banks in 1851, and two or three others have nearly reached that aggregate.

The conversion of the state banks of issue into national banking associations, which was compelled by government legislation in war times, led to the abolition of the bank commission in 1865; but in 1866 an act was passed for the appointment of a single commissioner of Savings Banks, with the same powers which were enjoyed by the former commission. The number was increased to two in 1876, and afterwards to three, as the supervision of certain other financial institutions was put in their charge.

The duties of the Bank Commissioners have been performed during the period of their existence with marked intelligence and fidelity. Their reports to the legislature give evidence of this fact. They have grasped and borne in mind the true theory of the Savings Bank system in all its bearings; and, while aiming to secure from the commonwealth the protection of the system, they have held the banks to a faithful observance of the laws upon the statute-books without fear or favor; and the knowledge of this fact has helped to maintain in the community a confidence in these banks in times of great panic and in other periods, when a defective system of legislation elsewhere has involved the banks of other states in great loss or total ruin.

Every Savings Bank in Massachusetts is visited annually and unexpectedly by one or more of the Commissioners, and the affairs of the bank are raked, as it were, with a fine comb. All the securities are examined, the cash is counted, the cash in national banks verified, the books and bookkeeping are looked over, and suggestions are freely made. Again, the annual return made by the president, treasurer, and five or more trustees, is carefully analyzed by the Commissioners before they make up their report to the legislature. It must be accompanied by a trial balance, and certain statements which serve to reconcile the receipts and disbursements for twelve months with the condition of the bank at the beginning and end of the year. Under such oversight, and with trustees faithfully performing the duties to which they are sworn, the banks and their executive officers are kept up to the proper mark. A striking illustration of the efficacy of bank supervision as practiced here, is found in the fact that on occasion of the recent suicide of a bank treasurer in Massachusetts, it was found that while he had stolen many thousand dollars of private trust funds and brought their owners to financial ruin, the assets of the Savings Bank were found absolutely intact and secure.

The earlier Savings Banks only stipulated to pay dividends, semi annually, at the rate of four per cent. per annum, with a distribution of the surplus as an extra dividend once in five years. This extra dividend, in many cases, brought the average up to six, seven, or even eight per cent. Later on the semi-annual dividends were raised to two and a-half per cent., or five per cent. for the year, with a very handsome extra dividend at the end of the five years. The advance was made to meet in part the argument that those who were compelled to withdraw their money after two or three years did not get their full share of its earnings—an argument upon which considerable may be said on either side. About the close of the last war some new banks were started, which promised "to divide all their earnings every six months." This promise was so attractive that it secured for the promisers the lion's share of fresh deposits, and the older banks were compelled in self-defence to follow suit. It was not long before the greater strength of the older banks compelled them to pay a larger dividend than the newer ones could earn, and all parties felt relieved when they were required by the general law of 1876 to go under the limit of not more than

two and a-half nor less than one and a-half per cent. semi-annually, with provisions for extra dividends once in three years if the profits are sufficient. But the change in the value of money has seconded the law of 1876 in the limitation of dividends.

The rate of interest on mortgages has fallen in twenty years from seven to six, and from six to five per cent., and even lower, though five is the most common rate at this time. The seven and six per cent. bonds, issued during and following the war in great quantity, and largely purchased by Savings Banks, have now nearly all matured, and their place is taken by four per cent. bonds, sold at a premium and netting the banks, after paying the state tax, only about three per cent. per annum. The banks, however, generally "charge off" all premiums from current receipts; but even then these bonds will yield, after allowing for state tax and an appropriation to the guaranty fund, no more than three and a-half per cent on their face value. Unless the legislature is brought to abolish the state tax, an action which may be defended on the ground that the Savings Banks are quasi-charitable institutions, and that the great bulk of the deposits could not be reached for taxation if they were not in the banks, the time will come when the bank dividends must be diminished. Then will the promoters of "snide" or fictitious investments reap a harvest from those in the community who, seeking the shadow of high interest, lose the substance of their capital, until, taught by sure experience and with fingers burned by playing with fire, the people once again learn the lesson that a low interest, with safety, is better than a higher rate, to be followed by ruin.

Kindred to the savings bank system is that of the "Co-operative Banks," introduced here of late, and founded upon the plan of the building societies which have proved so successful and beneficial in Philadelphia and elsewhere. While the system is the same, the local method of operation, however, is in many cases quite different. In Philadelphia and elsewhere one sees countless cottages, detached or more generally in blocks, the little homesteads which the occupants have been able to secure by small monthly payments. Here we see instead, in many cases, a tenement house, built of wood, of three stories, which a generous bank has furnished a large percentage of the cost of building. The condition of the owner of one of these "three-deckers" is by no means to be envied. He has been seduced by the persuasion of the builder and by the ease in getting his loan—to the amount of which no limit is set by law—into building a huge edifice, and although he owns but a small share thereof he fancies himself a capitalist. His "modern improvements" attract tenants, and all goes smoothly for a while. Ere long, however, a dulness of general business finds him losing a part of the rent on which he is dependent to meet his taxes and his heavy monthly payments to the bank; newer houses, with more modern "improvements," go up in his neighborhood and his tenants move into them, so that he must supply their place with a class who can pay only a lower rent. If he succeeds in redeeming and holding on to his unfortunate investment, he leads a life of slavery and of discomfort. If with his original capital he had taken a small loan and built a modest cottage, solely for his own family, the monthly payment of a sum no greater than what he had previously paid as rent-money would in a few years make him the absolute owner of a home in which, with wife and children, he could lead a life of peace and quiet and enjoyment such as could never be attained in the dreary vastness of a tenement house. The true good of the people will be fostered by encouraging the building of little homes and discountenancing any other form of dwellings. It would be interesting, and doubtless astonishing, to know how largely the funds of these co-operative banks are supplied by small capitalists who make no use of them in the way of taking loans to secure a

homestead, but who get from them a larger return for their money than can be obtained in any other way that is reasonably safe. It is the large volume of money which is thus poured into the coffers of the co-operative banks which leads them to make unwise if not unsafe loans, and in this way seriously menaces their very existence.

The savings banks of Massachusetts have very recently been grappling with the question how best to treat a certain class of their investments which is still considered desirable in its nature and has hitherto been extremely profitable. The stock of national banks, especially of those in Boston, has been regarded with special favor because of the liberal dividends received and because so much of the savings banks deposits as was invested in this class of stock has been exempt from the state tax. But the position in Boston is anomalous, because that city has a larger number of national banks than even the great city of New York, and of late years they have had to meet the severe competition of a number of deposit trust companies, whose creation has of course lessened the deposits in the old banks and has injured them in other ways. The lower rates of discount, which have prevailed for a few years past, have diminished the margin of profit, and where losses have occurred they have involved a shrinkage of assets from which it is difficult, if not impossible, to recuperate. The managers of the savings banks have, therefore, seen a falling off in the rates of dividends and a fall in market value of the stocks, which has filled them with apprehension and led them to cast about for a remedy. Two ways of meeting the difficulty suggested themselves. Since rent and salaries constitute a large portion of the expense of maintenance of a bank, it is obvious that a consolidation of two or three banks into one large one would produce a most gratifying result, and an effort was contemplated to accomplish this action. Another way would be to discontinue a bank which, for any reason, has lost its hold upon business, and thus, through liquidation, to receive a larger return than could be obtained by a sale of the stock in open market. The savings banks hold over nineteen millions of the fifty-two million dollars of national bank stock in the city of Boston, and would have the support in any action which they might take, of insurance companies, trustees and many large individual holders of stock. It was hoped that much could be accomplished by moral suasion, but the gentlemen who are enjoying snug places with good salaries are naturally loath to give up the emoluments and prestige of their positions, and progress in the work of reform is necessarily slow. Since the agitation began, a few banks have so far accepted the situation as to voluntarily reduce the amount of their capital, action which has been attended with gratifying results. That a large capital is not necessary to success is shown in the case of the Chemical National Bank of New York city, which, with a capital of only \$300,000, has a surplus of \$6,000,000, undivided profits of \$1,200,000 and an average deposit of over \$26,000,000.

A committee, appointed by the Massachusetts savings banks, was authorized early in December, 1896, "to take such steps as may seem best towards the consolidation, liquidation or reduction, or the consolidation and reduction of the capital stock of such national banks in the city of Boston as, upon examination, it may seem desirable." As a result of their investigation they came to the conclusion that there were "too many national banks in Boston and an excessive amount of banking capital;" but as the annual meetings of the banks were close at hand, there was not time to formulate any plan of decisive action, and the matter was left in abeyance, to be taken up again in the immediate future.

The returns of the condition of the one hundred and eighty-six savings banks in Massachusetts, at the close of business, October 31, 1896, are full of interest to the

statistician and the student of political economy. The returns of the corresponding date in 1895 are given for comparison:

COMPARATIVE AGGREGATE.

	1895. 187 BANKS.	1896. 187 BANKS.	INCREASE.	DECREASE.
Number of open accounts	1,302,479	1,340,668	38,189	
Amount due depositors	\$439,209,861	\$453,220,257	\$13,950,396	12
Number of deposits (not including dividends)	1,214,171	1,225,089	10,918	00
Amount of same	\$80,768,468	\$78,916,530	70	\$1,851,938
Number of withdrawals (including dividends)	662,205	1,050,329	88,124	
Amount of same	\$74,309,785	\$81,751,390	\$7,441,605	14
Number of accounts opened	187,093	183,246		3,847
Number of accounts closed	131,492	144,006	12,514	
Profit and loss account	\$4,436,471	\$5,011,729	\$575,258	46
Interest account	3,936,670	4,056,922	120,243	10
Surplus account	400,105	417,001	16,895	48
Premium account	28,617	\$19,208		\$9,408
Rent account	59,560	56,330		3,224
Due on unfinished mortgage loans	101,344	93,138		68,206
Sundry liabilities	72,540	76,709	4,169	73
Amount of guaranty fund	18,061,542	19,044,522	982,979	76
Public funds	67,827,426	69,460,753	1,633,327	53
Loans on public funds	1,359,531	2,176,378	816,847	00
Bank stock	28,988,921	28,435,188		553,732
Loans on bank stock	1,875,297	2,004,349	129,052	37
Railroad bonds	48,576,552	49,379,499	802,946	82
Loans on railroad bonds	204,350	240,550	36,200	00
Loans on railroad stock	830,600	\$1,001,232	170,632	84
Railroad notes	450,000	3,245,000	2,795,000	00
Real estate for banking purposes	\$3,824,401	\$4,048,965	\$224,564	50
Real estate by foreclosure	1,539,190	1,813,083	273,892	37
Assessed value of the same	1,010,899	1,883,270	263,370	71
Loans on mortgage of real estate	193,328,835	201,985,142	8,656,307	35
Loans on personal security	89,746,536	91,793,373	2,046,836	91
Loans to counties, cities and towns	11,261,742	10,174,142		1,087,599
Loans on depositors' books	53,944	44,997		8,947
Deposits in banks, on interest	14,158,720	13,253,990		904,730
Deposits in banks, not on interest	481,442	509,479	28,036	59
Cash on hand	1,229,775	1,669,973	440,197	43
Aggregate amount of earnings	20,596,223	21,798,078	1,201,854	80
Aggregate amount of ordinary dividends	15,904,066	16,835,008	930,941	65
Average rate of ordinary dividends	4.03 per cent.	4.01 per cent.		.02
Aggregate amount of extra dividends	\$121,826	none		121,826
Number of loans not exceeding 3,000 each	61,800	64,170	2,370	
Amount of same	\$71,831,569	\$75,346,399	\$3,514,821	29
Total number of loans upon real estate	69,020	72,056	2,736	
Total expenses (exclusive of taxes)	\$1,080,611	\$1,134,581	\$53,969	73

CONSOLIDATED BALANCE SHEET, OCTOBER 31, 1896.

ASSETS.		LIABILITIES.	
Public Funds	\$69,460,753 99	Deposits	\$453,220,257 27
Loans on public funds	2,176,378 65	Guaranty fund	19,044,522 24
Bank stock	28,435,188 88	Earnings undivided	9,561,199 07
Loans on bank stock	2,004,349 63	Due on mortgage loans	93,138 12
Railroad bonds	49,379,499 05	Sundry liabilities	76,709 77
Loans on railroad bonds	240,550		
Loans on railroad stock	\$1,001,232 84		
Railroad notes	3,245,000		
Real estate (for banking purposes)	\$4,048,965 63		
Real estate by foreclosure	1,813,083 13		
Loans on real estate	201,985,142 39		
Loans on personal security	91,793,373 27		
Loans to counties, cities and towns (notes)	10,174,142 31		
Loans on depositors' books	44,997 05		
Deposits in banks, on interest	13,253,990 28		
Deposits in banks, not on interest	509,479 45		
Expense account	183,927 63		
Sundry Assets*	575,799 04		
Cash on hand	1,669,973 25		
	\$481,995,826 47		\$481,995,826 47

* Consisting of interest and premium accounts, stock taken to secure indebtedness, furniture and fixtures, etc.

Gross amount of interest or profits received or earned during the year ending October 31, 1896	\$21,798,078 08		
Aggregate amount of ordinary dividends for the year ending October 31, 1896	16,835,008 38		
Average rate of ordinary dividends for the year ending October 31, 1896	4 01 $\frac{1}{2}$		
Aggregate amount of extra dividends for the year ending October 31, 1896	None.		
Number of loans which are of an amount not exceeding \$3,000 each	64,170		
Aggregate amount of the same		\$75,346,390 58	
Total number of loans upon real estate	72,656		
Number of accounts opened during the year ending Oct. 31, 1896	183,246		
Number of accounts closed during the year ending Oct. 31, 1896	144,006		
Total number of open accounts October 31, 1896	1,340,668		
Total amount of expenses for the year ending October 31, 1896, (exclusive of taxes)			1,134,581 43
Number of deposits, not including dividends, received during the year ending October 31, 1896	1,225,089		
Aggregate amount of the same		78,916,530 70	
Number of withdrawals, including dividends, during the year ending October 31, 1896	1,050,329		
Aggregate amount of the same		81,751,390 90	

RATES OF ORDINARY DIVIDENDS PAID BY ONE HUNDRED AND EIGHTY-SIX BANKS.*

NUMBER.	RATE.	NUMBER.	RATE.	NUMBER.	RATE.
$\frac{1}{2}$	1 $\frac{1}{2}$ %	2	3 $\frac{3}{4}$ %	7	4 $\frac{1}{4}$ %
$\frac{1}{4}$	2 %	156	4 %	10	4 $\frac{1}{2}$ %
2	3 %	1	4 $\frac{1}{8}$ %	1	4 $\frac{3}{4}$ %
5	3 $\frac{1}{2}$ %				

* One bank, which began business during the year, has paid no dividends.

† These two banks began business during the year and declared but one dividend.

The total volume of deposits has doubled in the last twenty-two years. On October 31, 1874, one hundred and seventy-nine banks had seven hundred and two thousand and ninety-nine open accounts, with deposits of \$217,452,120, an average of \$309.71 to each depositor. The annual expenses of management were then \$644,682, or a little more than one-quarter of one per cent. of the deposits. Twenty-two years later each depositor had an average of \$369.70, and the expenses were reduced to less than one-quarter of one per cent.,—.00246 as against .0029. The deposits on October 31, 1896, if divided among the population of the state, would give to each person \$181; but while this estimate is useful for the purpose of comparison with other states, or with different periods here, it should be borne in mind that our banks are used to a considerable extent by adjacent peoples and by New Englanders who have migrated to other parts of the country. In fact, some of the largest banks are represented by depositors in all parts of the world.

While the growth of savings banks gives evidence of the increasing prosperity of a community, their business furnishes a much less sensitive index of the conditions existing at a particular time than is generally supposed. If a "strike" occurs in one branch of labor, the men in other branches may be led to lay aside a few dollars against the possible event of their own future revolt. If half the hands in a factory are dismissed because of dull times, the workmen who are retained are impressed with the importance of providing for the time when their own services may no longer be required. And if the strikers or the unemployed have a bank deposit, it looks to them so much larger and more important than ever before that they will often even accept of public charity before drawing from their store. It is not until the strike or the dull times are long continued that the ordinary ratio of deposits to withdrawals from the savings banks is disturbed. The return of prosperity even does not produce a marked change. The increased receipts of the people go out in purchases or expenses which have been deferred, and with a clear sky one overlooks the importance of providing for a rainy day.

It is a noticeable fact that while Savings Banks originated in the older (northern) states, they have not followed, to any large extent, the growth and development of the other portions of the Union. Of course, where the great bulk of the laboring population was held in slavery, there were practically no earnings to be saved. The development of manufactures in some sections of the south, since the war, has led to the creation, here and there, of a few of these beneficent associations. In other portions of the country the private banker, who, appearing in the early life of a settlement, has received the deposits of those, who would trust him, has been allowed to continue the business, sometimes to the profit of his depositors, and sometimes to their loss. The rate of interest which could be paid by Savings Banks working under the same restrictions as to investment which prevail at the east, seems very low to a citizen of the west. And the writer has met with people to whom the handling of money had always meant a certain amount of profit, who could not see any justification to themselves in giving time and attention and wisdom, gained by experience, to the custody and investment of the money of other people, when their valuable services were to be unremunerated and to be treated only as a labor of love.

As a substitute for Savings Banks, especially where such institutions do not exist, the creation of Post-office Savings Banks, which are common abroad, has been earnestly advocated for some time. The fact that (because no political "heelers" could be rewarded, no one class of the community could be enriched at the expense of another,) the project has not gained ground in Congress, is a strong argument for its supporters. And while we admit the great advantage which the people, who

have not a good Savings Bank existing in their neighborhood, would derive from being able to deposit their savings directly with the government, and to receive some fixed rate of interest for its use, the new system would by no means benefit the entire community in any such measure as does the old. It must be remembered that money so deposited would remain in the hands of the government, to be used precisely as any other government funds, any benefit to the community at large being indirect and almost infinitesimal. But the money deposited in the ordinary Savings Bank goes out at once on its errand of doing good. It helps the mechanic to secure a homestead, it enables state, city or town to carry out grand schemes of public improvements, aids in the construction of railroads, and assists many a private enterprise, in all cases giving employment to labor. How could the national government extend help in these most essential and valuable ways of rendering aid? From what source, if it had not been from the Savings Banks, could the immense amount of money have been obtained which has gone into these channels during the past seventy or eighty years? Though the United States may, and not improperly, bid for small deposits of the people's money, the local Savings Banks must and undoubtedly will survive. We cannot conceive of any financial system which could fully supply their place.




CHAPTER CXLII.

THE COMMERCE OF BOSTON.

BY CURTIS GUILD, JR.,
Editor *Boston Commercial Bulletin*.

WITH ARTICLES ON LEATHER, FISH AND OLD MATERIALS, BY E. H. PARKER.
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N English publishing house some time since undertook a series of municipal histories, entitled *Historic Towns*. Along with the histories of London, Exeter, York and Carlisle is published that of Boston. Barring New York and recently Chicago, there is no city in the United States of such interest to Europeans. This is largely due to the extensive foreign business connection which in spite of the grip of the Vanderbilt family on its railroads, in spite of the neglect of the harbor by the National Government, the old Puritan capital somehow still manages to maintain.

The Hon. Henry Cabot Lodge, in his brief history of the city, notes as a curious circumstance that of the early settlers of the three-hilled peninsula, whose later importance is so largely due to its excellent position as a trading station, not one belonged to the trading class and not one was an Independent or a Puritan. David Thompson, who first occupied the island that bears his name, was an attorney. Samuel Maverick, of Noddle's Island, was a member of the English "gentry." Thomas Walford, the original settler of Charlestown, was a blacksmith, and William Blaxton, the first to build on the greater peninsula, was a clergyman. Not one of these men had ever engaged in business. Every one of them was a member of the Church of England.

The removal of Governor Winthrop to the larger peninsula and the earliest real-estate boom in Boston was occasioned not so much by the superior fertility or location as by the singular excellence of Boston water. In any European city the two historic springs, that of Blaxton on the west slope of Beacon Hill and that of Winthrop on Spring Lane would be flowing to-day through commemorative fountains. To them Boston owes its very foundation.

After the first hard winter the little town thrived apace. Houses sprang up on the sunny slopes of the three hills, wharves were built, and as the twenty thousand Englishmen in the next ten years sought settlement in or behind the new little city they turned to the town as the market for their products and the source of their supplies. Within the first ten years of its existence Boston's commercial importance was established. The "Blessing of the Bay" was on the stocks within a year after the town's foundation, and not only ship-building and commerce, but the chase of

the codfish, still the special emblem of the General Court of Massachusetts, became at once, as indeed it still is, an important basis of local traffic.

Mr. William Wood, in his "New England's Prospect," published in London in 1634, says of the citizens of Boston :

"Their greatest wants be Wood and Medowground which never were in that place; being constrained to fetch their building timber and fire-wood from the Ilands in Boates and their Hay in Loyters : It being a necke and bare of wood they are not troubled with three great annoyances, of wolves, rattle-snakes and Musketoës. These that live here upon their Cattle must be constrained to take Farmes in the country or else they cannot subsist; the place being too small to contain many and fittest for such as can Trade into England for such commodities as the country wants, being the chief place for shipping and merchandize."

Mr. Wood's statement is as true in 1897 as in 1634, for the foreign commerce of Boston is still most extensively with the British Isles.

By 1654, according to Captain Edward Johnson, of Woburn, Boston's commercial growth was already "The Wonder of this Modern Age." Says the captain, in his "Wonder Working Providence of Sion's Saviour in New England," published in Boston at that time :

"Good store of Shipping is here yearly built and some very faire ones; both Tar and Mastes the Country affords from its own soile; also store of Victuall both for their owne and Foreiners. Ships who resort hither for that end : this Town is the very Mart of the Land, French Portugalls and Dutch come hither for Traffique."

John Josseleyn, in an account of travels in New England, published in London in 1675, mentions the fine wharves and houses of Boston, and mentions the out-of-town farms at Muddy River, where the cattle belonging to citizens were pastured out in the summer. Antoine Court, a French Protestant refugee, was also greatly struck in 1687 with the handsome brick houses of the city. He mentions the high price of labor, and praises the skill and enterprise of Boston's ship-builders and ship-carpenters. It is interesting to note that, as early as 1687, Boston had a well-established trade with the West Indies.

Says this contemporary Huguenot witness of Boston in 1687, in the manuscript now in the library of Geneva :

"This Town carries on a great Trade with the Islands of America and with Spain. They carry to the Islands Flour, Salt Beef, Salt Pork, Cod, Staves, Salt Salmon, Salt Mackerel, onions and oysters salted in Barrels, great quantities of which are taken here; and for their Return they bring Sugar, Cotton, Wood, Molasses, Indigo, Sago. . . .

"In the Trade with Spain they carry only dried Fish which is to be had here at eight to twelve Shillings the Quintal according to Quality: the Return Cargo is in Oils, Wine and Brandy."

A generation later, in 1719, at about the time the first printed map of Boston was published (Captain John Bonner's, in 1722), Daniel Neal writes enthusiastically of the splendid coast defences of Boston and of its harbor, "Spacious enough to contain in a manner the navy of England." The shipping was so thick as to make "a kind of wood of trees," and, in the information furnished his majesty's government, it appeared that the town cleared annually "24,000 Ton of Shipping."

Long Wharf was described as "a noble pier 1800 to 2000 foot long with a row of ware-houses on the North side for the use of merchants. The Pier runs so far into the Bay that ships of the greatest Burthen may unlade without the help of Boats or Lighters."

This friendly hand also describes Boston's active book trade and notes that "Humanity and the Knowledge of Letters flourish more here than in all the other English plantations put together." At that time there was but one book shop in New York, and none in Virginia, Maryland or the Carolinas. The city had then 20,000 inhabitants and maintained 2000 militia. It was easily the first town in English America in trade and commerce.

In the middle of the last century the port employed five hundred vessels in foreign commerce and at least a thousand small craft in the coasting trade and in fishing. The staple exports were still lumber, naval stores, provisions, and some furs, but the great staple was the codfish with which the bay apparently swarmed.

The bustling prosperity of the trade with the French West Indies and the heavy duties levied in consequence by England to check this trade on the Boston imports of rum, molasses and sugar from the French islands, it will be remembered had not a little effect in bringing about the Revolution. The even greater indignation against the Stamp Act has caused most of us to forget that the tyranny of Grenville's Molasses Act alone roused Boston almost to the point of armed resistance.

What Grenville failed to do even with the help of the British Parliament and the British army, Theodore Havemeyer a century later was able to accomplish by the organization of the Sugar Trust; the crippling of Boston's commerce in sugar and molasses.

The final rupture with England, breaking down all the bonds that the mother country had laid upon our commerce, was a veritable boon to Boston. Business advanced at once. Unfortunately the local records of that business boom at the close of the last century no longer exist.

The records of the Boston Custom House were destroyed in the fire in the appraisers' stores in 1894. They were stored in a "glory hole" in the attic of that building. It was my good fortune to have examined them in 1892. At that time there was a nearly perfect record of the foreign commerce of Boston straight back to the days of the first American collector of the port. Collector Beard was wont to estimate the foreign commerce of the port at about ten per cent. of its total business. The statistics of transportation are, however, to be treated elsewhere by another hand.

I find from my notes that the first entry of foreign merchandise at Boston under the Constitution of the United States was on August 10, 1789. The vessel was the brigantine "Harriot," of eighty-one tons, under the command of Captain John Campbell. She sailed from Halifax, and was consigned to Edward Mortimer. Her cargo was 307 barrels of mackerel and salmon, on which a duty of seventy-five cents a barrel was assessed, the duty amounting to \$230.25. The fees were \$3.60, and the fish were bonded. The same day the brigantine "Jenny" arrived from Antigua, under Captain James Nicholson. She was laden with fifteen puncheons (1,686 gallons) of rum and forty barrels of limes and oranges. The duty on rum was eight cents a gallon, and on oranges five per cent. The duties collected from this floating punch-bowl were \$137.88, decidedly less than on the fish. No vessel arrived for two days after this, when a vessel came in from Madeira, laden with "keggs" of Madeira wine.

Rum and liquor is a constantly recurring item, and Madeira wine was apparently the prime favorite at the dinner-table.

The first entry of hides was from St. Thomas. Nova Scotia sent us our first pig iron and grindstones. The good ship "Abigail" from L'Orient, brought us our first imports of salt (duty six cents a bushel), kid gloves and "cambrick."

The first miscellaneous cargo from Liverpool arrived August 25th, consigned to S. & S. Salisbury, Samuel Parkman, Joseph Coolidge, J. & T. Amory, Peter Wainright, Andrew Brimmer and other fine old Boston names.

The spelling of the entries in this yellow old record-book is peculiar "skinns," "furs," "bushells," "barrells," "musketts," "lemmons," "mackrell," "ginn," "kidd," "millenary," "skreen," "linnen," "jarrs," "guggs," "oaker" (ochre), are samples of the generosity in letters of an earlier age. Though we may look in vain for their reappearance on the modern record-books, "sope," "shugor" and "cole" are constantly appearing on the manifests that come in from Nova Scotia to-day.

The economical collector kept at first but one record-book, entering the imports at one end and the exports at the other. The first exportation recorded is by William Todd (a name appropriate for such a cargo), who sent out January 11790, 83½ gallons of wine, 49 gallons of foreign rum, 46 gallons of foreign spirits, 235 gallons of Medford rum, 152½ pounds of Bohea tea and 276 pounds of sugar. Rum, tea, tobacco and sugar figured most largely in our exports in those days, and the only manufactured goods of which the record bears any mention are imported watches and clocks, which we re-exported. This was before the glories of Waltham and Waterbury.

It was a thriving port that carried on this commerce. Pemberton, in his description of Boston, in 1794, says: "The harbor of Boston is, at this date, crowded with vessels. Eighty-four sail have been counted lying at two of the wharves only. It is reckoned that not less than four hundred and fifty sail of ships, brigs, schooners and sloops and small craft are now in port."

In 1807, out of a total tonnage of the United States of 850,000 tons, 310,000 tons hailed from Massachusetts. Upon this thriving commerce Jefferson's embargo, forbidding foreign trade, fell like a blasting pestilence. New England was not then a great manufacturing centre. Commerce was her business, and the ocean her "farm." The European wars of Napoleon had destroyed the merchant fleets of well nigh every nation except the United States.

The prohibition of trade meant ruin to the city and the States that were then rapidly seizing upon the carrying-trade of the world. It is not extraordinary that New England rose almost to rebellion.

The embargo, however, if it checked commerce, being in effect not merely protection, but prohibition, stimulated manufacturing, and proved in that respect a blessing in disguise, for capital was turned to domestic development and to domestic commerce.

The close of the War of 1812, however, by no means saw the end of Boston's foreign commerce. On the contrary, in 1825, Hon. William Gray (Billy Gray), of Boston, was reputed to be the largest ship-owner in the world. He had a fleet of sixty square-rigged vessels. Gray's wharf, at the North End, was built by him. After 1812, however, foreign commerce and the fisheries, if they did not depart from Boston's business life, at least ceased to occupy its exclusive attention.

It was after that war, however, that Frederick Tudor organized the ice trade to the West Indies, and that Captain R. B. Forbes started that astonishing trade in American drills and sheetings in China.

Then began that series of blunders in legislation and private action which have driven from Boston several of her most thriving lines of business. In 1824, a tax of one per cent. was established on goods sold at auction. The goods, notably the teas, brought from China were sold in that way. Not till 1852 was the tax repealed, but by that time the horse was stolen. The China trade had moved to New York to stay and Boston had lost the business. Similar short-sighted and selfish action on the part of private firms drove the dry-goods commission trade from Boston to New York.

Still, in spite of such losses, business has steadily grown. The Cunard Line, an

English subsidized line, came first to Boston exclusively, not to New York. Its establishment was recognized and applauded as a gain to this port. A dinner was given indeed in Faneuil Hall to Captain Douglass, who commanded the "Unicorn," the first Cunarder to arrive here on June 2, 1840.

Since that date Boston's foreign commerce has more than quadrupled, but it is the British steamer, not the Yankee clipper, that carries it. It is gaining, however, every year, and, moreover, gaining faster, notably in exports, than the commerce of other ports of the United States.

The changes in the Boston Custom-House are interesting. The first United States collector of Boston took the reins of government in August, 1789. Before the Revolution the Royal Custom-House was on the northeast corner of Exchange street and State street, or to the left of the old State House, looking down State street. At that time State street was called Kings street.

The present Custom-House was begun in 1838, the architect was Ammi B. Young, and the building cost over a million. It is of granite throughout, and thoroughly fireproof. It is erected on a forest of piles, over which is a platform eighteen inches thick, of granite laid in hydraulic cement. When it was built the Custom-House was at the head of Long Wharf and close to the water.

After the Revolution the first United States Custom-House was in a part of Collector Benjamin Lincoln's house, on State street, near Congress street; or, to speak more exactly, the collector lived in a part of the Custom-House. Then it was removed to the corner of Change avenue, near the site of the old Royal Custom-House. Two wooden figures, emblematic of Hope and Justice, ornamented its front. In 1810, the first building specially erected for a Custom-House was built in Custom-House Street, where it still stands, surmounted by its wooden eagle. The unhappy old building is now used as a stable. This building proved much too small, and quarters on Merchants' row and Congress street were successively taken prior to moving into the present building.

The collector of the port is paid \$8,000 annually. He has under him four hundred and thirteen subordinates, Boston being the second Custom-House in the country in the number of employees. Philadelphia is third, with three hundred and forty employees. Boston is the second port in the country, measured by total foreign commerce. No port in this country exports or imports so much merchandise, with the sole exception of New York. Eleven per cent. of all the exports, and ten per cent. of all the imports of the country pass through the port of Boston. Philadelphia stands third as a port of import, with San Francisco a close fourth. As a port of export New Orleans is third and Baltimore fourth.

The figures of some of the leading ports for the last fiscal year ending June 30, 1896, are as follows:

FOREIGN COMMERCE.

	Imports.	Exports.	Total Commerce.
New York . . .	\$499,932,792	\$354,274,941	\$854,207,733
Boston . . .	79,179,864	95,851,004	175,030,868
Philadelphia . .	43,840,836	39,567,376	83,408,212
Baltimore . . .	13,476,630	66,398,905	79,875,535
New Orleans . .	13,471,142	80,986,791	94,457,933
San Francisco . .	41,400,307	31,582,910	72,983,227
Chicago . . .	15,545,819	1,293,073	16,838,892

The statistics of the country, down to 1880, included gold and bullion in the

exports of merchandise. Since that date they have been excluded from the statistics of exports and imports of merchandise. The statistics of the earlier years of the port are very defective. Neither here nor at Washington is there a complete or a detailed record.

VALUE OF IMPORTS.—FISCAL YEARS.

	United States.	Boston.
1790	\$ 23,000,000	
1800	91,252,768	
1810	85,400,000	*\$14,826,732
1820	74,450,000	* 10,453,544
1830	70,876,920	8,674,976
1840	107,141,519	16,591,575
1850	178,138,318	28,659,733
1860	362,166,254	39,366,560
1870	462,377,587	47,524,845
1880	667,954,746	68,503,136
1890	789,310,409	62,876,666
1896	779,710,024	79,179,864

* Total of all Massachusetts ports.

VALUE OF EXPORTS.—FISCAL YEAR.

	United States.		Boston.	
	Domestic.	Foreign.	Total.	Total.
1790	\$ 19,656,000	\$ 359,156	\$ 20,205,156	*†\$ 2,519,651
1800	31,840,903	39,130,877	70,971,780	† 11,326,876
1810	42,366,675	24,371,295	66,657,970	† 13,013,048
1820	51,683,640	18,008,029	69,691,669	† 11,008,922
1830	59,462,029	14,387,479	73,849,508	† 7,213,194
1840	113,895,634	18,190,312	132,085,946	† 10,186,261
1850	136,946,912	14,951,808	151,898,720	9,141,652
1860	373,189,274	26,933,022	400,122,296	15,168,015
1870	499,092,143	30,427,159	529,519,302	74,108,281
1880	823,946,353	11,692,305	835,638,658	59,238,341
1890	845,293,828	12,534,856	857,828,684	71,201,944
1896	863,200,487	19,406,451	882,606,938	95,851,004

* 1791.

† Total for all ports in Massachusetts.

The amount of foreign merchandise re-exported from the United States, as from Boston, is so small as to be inconsiderable. Practically the whole of our exports are of domestic production. We export less foreign goods now than at any time in our history. In 1800, it will be noted from the foregoing figures, we exported more foreign than domestic goods, but the whole of this traffic was a drop in the bucket compared with our present enormous export trade.

A very curious fact is the drop in Boston's imports from 1880 to 1890. This is almost wholly caused by the decline in our imports of sugar. In 1880 we imported millions of pounds more than in 1890. In 1880 our imports of sugar and molasses were valued at \$13,461,736; in 1890, at but \$9,567,316, or about the same as in 1870 (\$9,643,456). The value of our imports of sugar had fallen in 1896 to \$8,515,794. The history of under-valuation of raw sugar in New York, the advantage of cheaper raw material obtained thereby by the New York refiners, of the consequent

entrance of the Boston refiners into the trust, the investigation of the sugar-room in New York, the exposure of the habitual lower-reading of the polariscope there, form an interesting chapter in our commercial history. The net result has been the closing of some of our refineries by order of the trust, and the curtailment, as shown by the statistics given above, of our business in sugar.

It is interesting to note that in the Free Trade decade (1850-1860) our imports of cotton manufactures doubled, and with a smaller population were in 1860 three times what they are to-day. In that same decade our imports of raw flax declined, our imports of crude iron declined, our imports of steel bars doubled (though steel manufactures slightly declined), leather came in more freely, raw wool (there was then no competition from Australia) dropped off, but manufactured wool remained about stationary.

Our most important imports to-day, in 1896, measured in value, are wool, \$19,200,709; sugar, \$8,656,989; iron and steel manufactures, \$5,462,050; drugs, dyes and chemicals, \$5,134,803; cotton, \$5,070,464; hides, \$4,956,675; hemp and jute, \$4,229,138; and leather, \$3,065,606. No port imports so much wool in value or pounds, nor so much leather or cotton. Practically all the cotton imported from Egypt and Peru comes to Boston.

Our most important exports, measured in value, are provisions, \$34,663,398; live animals, \$14,356,934; breadstuffs, \$13,246,040; cotton, \$11,189,573; leather, \$8,949,515; wood, \$1,184,238; and distilled spirits, \$1,169,599, in the order named.

Distilled spirits and lumber, our old staples, only brought Boston a million a-piece last year, while our exports of provisions were worth thirty-five million dollars. We are especially strong on fresh beef and hog products; Boston exports more hams than any port in the Union. We lead the country in exports of leather and leather goods, \$9,300,000 in 1896; of cattle and sheep, \$14,200,000 in 1896. Curiously enough, too, we surpass Baltimore, Wilmington, Charleston, Norfolk and Philadelphia in our shipments of raw cotton, being ranked in this respect, however, by New Orleans, Galveston, New York and Savannah.

The following tables are specially prepared from the official records of the Custom House:

TRANSACTIONS OF COMMERCE, PORT OF BOSTON.

Imports for Fiscal Years Ending June 30.

GOODS.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1892.	1896.
Free goods	\$1,028,481	\$7,587,548	\$2,174,992	\$10,094,557	\$2,966,774	\$17,131,428	\$15,291,797	\$35,956,277	\$46,541,081
Manuf of Cotton	484,681	396,184	1,463,263	4,154,557	809,198	1,007,570	1,368,074	1,340,519	1,347,515
Flax—Raw and Manuf of	247,098	59,516	1,012,371	278,343	1,793,048	2,913,233	7,484,243	5,390,120	3,615,104
Iron—Pig, Bar, Etc	912,709	1,247,769	2,163,810	1,720,675	2,764,407	4,474,501	1,308,418	372,254	427,662
Steel—Rails, Bar, Etc.	49,131	149,062	332,289	624,110	512,328	1,277,589	637,208	826,660	377,377
Manuf. of Iron and Steel	252,139	369,911	837,051	679,599	1,119,958	1,003,635	2,551,516	3,203,343	3,752,748
Leather of all kinds	42,630	73,567	104,424	86,943	310,381	511,026	2,505,845	1,687,315	3,484,811
Manuf of Leather			95,987	161,073	19,173	1,103,990	2,545,845		
Manuf of Silk	759,369	295,472	1,413,087	1,425,508	822,261	577,754	422,114	359,336	287,779
Wool, Raw	16,915	93,536	866,665	161,888	2,303,687	12,011,459	7,329,443	10,574,235	20,164,363
Cloths and Cassimeres	127,164	70,660	168,571	1,407,942	1,38,417	880,660	881,057	919,518	630,027
Carpets	66,880	59,799	105,813	212,467	412,593	100,016	114,032	128,726	154,097
Dress Goods	139,980		799,154	1,234,677	2,086,350	1,615,412	657,190	374,795	680,360
Other Manuf. of Wool	57,118	258,776	737,900	267,758	231,748	598,005	1,898,806	458,207	661,697
All Other Importations	4,505,671	5,998,787	15,393,456	18,362,377	30,024,516	24,009,168	20,075,391	12,519,184	19,113,511
TOTALS	\$8,674,976	\$16,591,575	\$28,659,733	\$39,366,560	\$47,524,845	\$68,503,136	\$62,876,666	\$71,780,459	\$79,170,813

* Classified as Worsted Stuff Goods.

† Classified as Piece Goods of Wool, etc., including Wool and Cotton.

‡ Classified as Piece Goods of Wool, etc., including Worsted and Cotton.

§ Including free added in "free goods."

Domestic Exports for Fiscal Years Ending June 30.

GOODS.	1830.	1840.	1850.	1860.	1870.	1880.	1890.	1892.	1896.
Cotton, Raw	\$25,195	\$138,270	\$111,188	\$384,040	\$135,120	\$7,033,344	\$7,494,941	\$12,382,130	\$11,189,567
Breadstuffs, including Grains and Rice	489,875	589,128	978,269	1,345,370	1,323,406	14,927,047	10,842,392	16,832,291	13,250,843
Bacon, Hams, Beef, Pork, Meats *	214,324	379,604	837,780	835,950	983,331	18,356,931	27,318,048	31,303,243	34,911,969
Preserved Mutton, Lard, Butter, Cheese, Eggs									
Leaf Tobacco, and Manuf. of									
Animals, Living	110,322	337,623	215,601	632,020	629,571	1,259,828	1,404,137	333,919	426,046
Hides, Skins †	4,840	4,395	3,196	1,840	5,333,771	8,754,035	11,209,270	14,357,229	121,813
Resin, Turpentine, Etc	24,042	21,935	59,044	66,660	59,728	29,334	22,437	31,203	168,629
Fruits, all kinds	3,887	5,579	10,482	36,670	76,073	402,761	402,368	659,044	206,286
Vegetables (including Onions)	4,016	6,039	12,933	34,090	39,633	48,770	42,789	35,162	27,754
Sugar and Molasses	1,548	230,943	208,919	100,830	121,223	381,055	112,354	150,863	107,556
Hops	9,309	0,950	8,270	4,210	6,871	68,526	4,654	64,485	47,554
Tallow †				70,479	346,547	1,432,745	567,150	428,416	211,679
Agricultural Implements †					111,997	170,815	198,503	379,249	243,156
Iron and Steel, and Manuf. of	58,605	61,225	123,478	484,570	1,612,411	841,628	1,183,073	1,160,417	1,278,993
Leather, and Manufacturers of	113,180	23,009	52,163	245,216	80,761	896,808	4,318,438	4,171,322	9,310,439
Oils—Whale, Fish, Lord, Mineral, etc.	45,678	86,097	223,194	119,100	728,117	820,737	924,482	325,855	263,267
Coin and Bullion	920	63,360	170,847	2,329,980	10,000	None.	None.		
All other articles	1,400,271	2,513,843	3,941,164	6,836,234	5,902,600	5,614,092	6,180,868	7,049,632	8,507,368
TOTALS	\$2,506,302	\$4,485,866	\$6,053,528	\$13,530,770	\$12,216,815	\$82,023,587	\$70,304,055	\$86,610,057	\$94,638,178

* Including "Hogs," "Hides and Skins," and "Tallow," for 1830, 1840 and 1850.

† Included in "Bacon, Hams, &c.," for 1830-50.

‡ No separate classification in 1830, 1840, 1850 and 1860.

1860:—Boston's percentage of Importations for whole United States, 11½.

1880: " " " " " " " " 10½.

1891: " " " " " " " " 8½.

1896: " " " " " " " " 10½.

1860: " " " " " " " " 3½.

1880: " " " " " " " " 7.

1891: " " " " " " " " 8½.

1896: " " " " " " " " 10½.

Of course our domestic commerce enormously exceeds our foreign. Boston holds a commanding position in wool, shoes and leather, fish, rags and old metals. While our other markets are by no means unimportant, in these the operation of Boston merchants are felt all over the world.

BOSTON AS A WOOL MARKET.

Boston is the first wool market in the Western Hemisphere and in the world is second only to London. Indeed, as a market for consumers, Boston approaches more nearly to London than most people suppose. Of the 230,911,473 pounds of wool imported into the United States in the last fiscal year, 118,263,666 pounds came to Boston, New York being 36,000,000 pounds behind. The clip of American wool in the calendar year, 1896, was 272,000,000 pounds, of which Boston sold 114,587,010 pounds. Philadelphia comes second to Boston, followed by New York and Chicago.

Sales of wool in Boston for the past ten years are as follows:

	DOMESTIC.	FOREIGN.	TOTAL.
1887			113,446,065
1888	152,253,870	24,723,000	176,976,870
1889	95,763,063	31,629,200	127,392,263
1890	118,207,046	26,235,900	144,442,946
1891	115,827,159	32,328,300	148,155,459
1892	137,749,700	42,697,900	180,447,600
1893	107,207,000	25,574,900	132,781,900
1894	138,640,284	27,281,500	165,921,784
1895	154,339,773	76,410,000	230,750,773
1896	114,587,010	44,616,900	159,203,910

The first year of Free Wool, of course, witnessed the heaviest sales on record, as manufacturers held back, awaiting the opening of the flood-gates and the expected drop in price of all wools. In the year 1895, as noted above, Boston sold 230,750,373 pounds of wool, of which 76,410,000 pounds were foreign. The utmost claimed by New York was a total of 70,000,000 pounds, of which 52,000,000 pounds were foreign. Philadelphia's sales were not over 90,000,000 pounds, mostly domestic.

Boston's sales of foreign wool alone are more than New York's combined sales of foreign and domestic. In the acute depression of 1896 this statement still held good. New York's total sales in 1896 did not reach 40,000,000 pounds. New York as a market for American wool has been steadily declining. Six firms have moved from New York to Boston in the last decade. Boston sells more wool alone than any other three markets in the country. Her stock of foreign and domestic wool on hand, January 1, 1897, exceeded the combined supplies of New York, Philadelphia, Chicago, St. Louis and San Francisco.

The week's sales average from 3,000,000 to 5,000,000 pounds. The largest week's sales on record were those of the week ending January 23, 1897, with a total of 11,706,000 pounds. This was nearly equalled when it was thought Mr. Cleveland would veto the Gorman Tariff. The sales for the week ending July 28, 1894, were 11,405,000 pounds.

The record year of wool sales in Boston was 1895, the first year of free wool: Boston's sales amounted to 154,439,773 pounds domestic, and 76,410,000 pounds foreign, a total of 230,750,373 pounds. This was most nearly touched in 1892, with sales of 137,749,700 pounds domestic, and 42,697,900 pounds foreign, a total of 180,447,600 pounds.

The first Boston Business Directory (1846) notes but eleven wool firms, of which but one exists to-day. There are to-day a hundred and thirteen wool firms in Boston. This total does not include large houses like N. W. Rice & Co., and A. Donner & Co., who are general merchants, and import wool with other merchandise. A glance at any rate-book of any commercial agency shows a uniformly high rating that is surprising. The thirty-two leading houses are rated by Bradstreet at \$11,790,000. This is a minimum rating. The wool trade, outside its own capital, has directors on the boards of banks whose aggregate capital is \$23,000,000. The aggregate financial backing of the trade is over \$50,000,000.

The wool trade comes to Boston not only because of the better financial and mechanical facilities which exist here, but because New England is the favorite seat of American wool manufacture. Of 8,242 wool cards, and 1,294 worsted combs in the country in 1896, 4,070 cards and 694 combs are in New England, and 1,837 cards and 388 combs in Massachusetts.

The ancient seat of the wool trade was near the old hide district, near the water end of State street. It has steadily moved southwest, and is now centred about the new Union Station, on Atlantic avenue and Federal streets. The great lofts along the water side were expressly built for the wool trade, with plenty of light for sampling. Railroad station, wool office and wharf are in closer proximity than in any other city that handles wool, rendering sampling easy and teaming swift.

BOSTON IN SHOES, LEATHER AND HIDES.

As a shoe and leather market Boston is paramount in America. More than this, there is no city in the world, not even London, that sells so many boots and shoes, and so much leather as the Massachusetts capital. The position of the city as the distributing centre of these great industries has not been achieved by accident, but is the fruit of energy grafted upon primary conditions.

In the colonial times the manufacture of boots and shoes was a well-established industry in New England, and with it naturally was associated the tanning of leather. The trade of the city in the early days of the century had developed relative importance. Shoes were shipped by packets to New York and the southern markets, and hides were brought in to supplement the native supply.

The shoe and leather trade had its first headquarters naturally at the North End, and one can still see on John Street the almost obliterated sign, "Shoe and Leather street," which made the former centre of the business. During the '60's the trade had outgrown the facilities afforded in this location, and there was a general emigration south. Pearl Street became the seat of the boot and shoe business, while Congress, Purchase and High Streets became the leather mart. This section substantially is still and likely to remain the location of the business, though Pearl Street has been virtually abandoned by the shoe trade, which is centred around Summer and Lincoln Streets, while the leather trade has overflowed into South Street.

The boot and shoe business was never more firmly entrenched here than it is today. It seems singular at first thought that an industry requiring such a relatively small expenditure for permanent plant as does a leather shoe factory, in comparison with, say a cotton or rolling-mill, should not only hold its ground in this corner of our great country, but increase with the growth of the country. Such, however, is the fact, and nowhere in the United States can boots and shoes be manufactured so cheaply as in New England. No better goods are made either, than are turned out by factories in Lynn and other towns in this vicinity.

The main product of the New England industry handled in Boston is naturally of the solid and substantial type, worn by the great majority of the American people. It is for the purchase of these goods that dealers from all the states of the Union flock to Boston. The amount of boots and shoes sold in this city annually is a matter of conjecture. We know that there were shipped from this city last year to points outside of New England, 3,940,179 cases of boots and shoes, but to this must be added a large unknown number of cases shipped West and South from the factories, in other ways than through Boston, besides the quantity consumed by the five million inhabitants of New England. Even were the number of cases known it would give no key to the number of pairs of boots and shoes represented, as the cases contain anywhere from one dozen to sixty pairs each.

We may, however, reach an approximation of the value of the trade, by assuming that all the factory product of New England is sold in Boston. This is within measure, also, from the fact that the product of factories of States outside of New England, New York, Pennsylvania, Virginia, etc., are sold here. Now, by the census of the United States in 1890, the value of the New England factory product is given for the year as \$140,932,656. It is a fair presumption that the trade of the city in these items amounts to not less than \$150,000,000 at the present time.

We have, in these figures, not considered the rubber boot and shoe business, which in 1890 was credited with a product of \$18,632,060, the bulk of which is marketed from Boston.

Turning now to the leather trade, we are confronted by an absolute absence of statistics, but it is fair to assume that the value of leather sold in this city approximates a hundred million dollars annually. In the last fifteen years the importance of Boston as a leather market has been greatly enhanced. Before that time, New York was looked to by our shoe manufacturers to supply considerable sole and imported leather.

One by one, however, the houses there found that their interests required them

to open stores in Boston, which in many cases soon dwarfed the parent establishments both in size and importance. The morocco manufacturers of Philadelphia and of Wilmington, Del., found their interest in the same direction; so, too, with the great tanners of Chicago and Milwaukee. Indeed, leather tanned in California is sent to Boston to be sold. New York and Pennsylvania are full of sole and upper leather tanneries, whose whole product is marketed in this city. In Michigan, West Virginia, North Carolina and other states, are tanneries either operated by Boston houses, or whose product is sent here to be sold.

What we may call the local production of leather is not receding either. Our home tanners are changing their product somewhat; they are making more of the lighter, finer grades, but it may be doubted if Salem, Peabody, Winchester and Woburn ever made more leather than they do to-day.

Besides its domestic trade, Boston has an important foreign business in leather. In fact, some of the large English dealers keep representatives here; others make regular pilgrimages to the Puritan city, besides maintaining constant communication with our houses. The exports of leather from Boston last year reached \$8,183,343.

As a hide market Boston is of the first importance, but as an entrepot distinctively, we are ranked by New York and Chicago. Yet a large amount of hides held in those cities are sold through Boston brokers, while a vast majority of the hides collected at the numerous western and southern centres, such as St. Louis, Kansas City, Quincy, Ill., Nashville, Cleveland, Indianapolis, Richmond, Va., etc., are sold in the same manner. Most of these hides never are seen in Boston until they reach our warehouses in the form of leather. This city has always been important as an importer of hides, but of late the receipts of African hides have declined, owing to the disturbances in Madagascar and from other causes, but the imports from the River Platte are maintained, as vessels taking lumber hence load hides on their return. In calf and sheepskins the city has a large trade, and in goatskins the expansion of our local morocco manufacture has given a considerable impetus to this branch of business.

BOSTON AS A FISHING CENTRE.

Up to the discovery of Newfoundland, in 1497, Holland possessed a monopoly of the fish business of the world. The pickled herring of Holland made indeed but a sorry showing towards supplying the vast quantities of fish required during the Church fasts by the Roman Catholic people of Europe, but they, nevertheless, constituted the bulk of the supplies at that period, and out of this scantiness of supplies and the pressing necessities of the faithful the Dutchmen grew rich. Fish were a commodity almost as precious at some times as gold itself.

Hence, after Cabot made his first voyage to Newfoundland in 1497 and brought back news of the vast stores of fish in the waters there, many were the venturesome voyages undertaken thereto in quest of them. Some writers aver that trips were made to our coasts in search of fish almost every year for a full century before settlements were established here. Be this as it may, it is clear that an English vessel fished along our shores as early as 1602, for, at that time, the sturdy, sea-defying arm which our benevolent commonwealth stretches out to the support of Provincetown, received its curt title as Cape Cod from a venturesome English skipper.

Thenceforth, the development of the fisheries here was rapid. The glowing tales of the returning fishermen made America look more and more attractive and stimulated colonization.

Already, in 1624, we hear of a vessel laden with fish being despatched to England by our sombre forefathers, and these, too, cured with salt of the colonists' own manu-

facture. In the year following, two more cargoes were sent home burthened with fish and furs while, by 1670, the fisheries here had become so extensive and important that we find an English visitor of considerable authority enviously declaring, "New England is the most prejudicial plantation to this kingdom." For what reason?

Forsooth, because "of all the American plantations His Majesty has none so apt for building of shipping as New England, nor any comparably so qualified for the breeding of seamen, not only by reason of the natural industry of that people, but principally by reason of their cod and mackerel fisheries; and, in my poor opinion, there is nothing more prejudicial and in prospect more dangerous, to any mother kingdom, than the increase of shipping in her colonies, plantations or provinces." So it was natural, as well as unnatural, for Parliament in 1775 to endeavor to starve the Puritans into submission by passing an act depriving Americans of the right of fishing in their own waters.

On such a deep, and substantial foundation rests Boston's immense fishing interests of to-day. Until 1819 business was mainly transacted on the Charlestown side of the harbor, but by the middle of this century the dealers began to emigrate to the Boston side and to locate in the neighborhood of Commercial Wharf. After remaining here for nearly sixty years, and being hampered in many ways, they contracted with the New York and New England Railroad for an entire wharf, to be constructed for them on that corporation's property, on the South Boston flats. This contract, for some reason or other, eventually fell through, for in the fall of 1884 we find them emigrating, in a compact body, to their present quarters on T Wharf. Here they have comfortably remained since. A lease being taken of the entire wharf by a co-operative association, composed of the dealers called the T Wharf Fish Market Association, from which each dealer sub-leases his own quarters.

While the wholesale fresh-fish dealers have dwelt together almost from the very beginning as one compact body, the dealers in cured and pickled fish have always been more or less scattered. The changes in trade conditions have also affected them much more than those who have dealt solely in fresh fish.

The earliest issue of the Boston Business Directory, that for 1846-7, gives a list of eighteen dealers in salt and pickled fish. The same authority sets the number in 1896 at neither more nor less than 1846—to wit, eighteen.

DEALERS IN BOSTON IN SALT AND PICKLED FISH.

(Compiled from the Boston Directory.)

1846 18	1875 33	1887 27	1892 22
1859 23	1880 29	1888 25	1893 21
1860 30	1883 34	1889 23	1894 20
1865 22	1885 34	1890 23	1895 18
1870 35	1886 33	1891 22	1896 18
1871 36			

The natural conclusion to be derived from the above statistics is that the salt and pickled fish business of Boston has been steadily on the wane. This, however, is not entirely true. It is evidence, rather, of the changing conditions of the salt-fish trade here than of its decline.

In the first place, for this apparent loss in the number of dealers, there has been a corresponding gain in the list of commission houses dealing in dried and pickled fish. It is impossible to tabulate this increase, as the Boston Directory fails to distinguish commission houses that deal in fish from those that deal in turnips or other kinds of commodities, but, we are informed, by no less competent authority than

Mr. Frederick F. Dimick, secretary of the Boston Fish Bureau, that the loss in the list of regular dealers is more than offset by the number of new fish commission houses which have sprung up in the last few years.

Ten years ago there was little or no fish cured in the city of Boston. To-day there are at least seven or eight fish-curers steadily at work treating the fish as they come to them out of the butts. In 1893 as much as 50,000 quintals of fish were cured here. Boston smokes more finnan haddie than any other city in the country, and she distributes more fresh halibut than all the other cities combined.

Altogether, it seems probable that, despite the tremendous decreases in the catches of cod and mackerel the past ten years, and despite the sharper competition experienced on all sides, that Boston's business in salt and pickled fish would show a small but steady increase in monetary value over the figures for preceding years.

Returning once again to fresh fish, we find the aspect of things completely altered. From a roll of fifty-one houses dealing in fresh fish in a wholesale way in 1887, the number has increased in 1896 to sixty-two. At the same time the roster of retail dealers scattered all over the city has shown an even greater increase. In 1896 there were one hundred and forty-one retail dealers in fish in the city of Boston.

It is then in the way of fresh fish that Boston has manifested the most remarkable development. As far back as in the United States Fish Commissioner's Report for 1892, we find Boston's status as a great fish-distributing centre referred to in the following fashion :

"The fish trade of Boston is of greater magnitude than that of any other city of the United States. The investigations have shown that in the calendar year 1891 the quantity of fishery products there landed by American fishing vessels was 69,945,088 pounds, mostly fresh, having an approximate value to the fishermen of \$1,840,336. This quantity is in addition to very large receipts, chiefly from the provinces, over regular rail and steamer lines. The most important single product brought into Boston by our fishing vessels is the haddock, of which 33,860,197 pounds, valued at \$824,132, were landed. Of the cod, the next prominent fish, 16,655,200 pounds, were landed, having a value of \$547,851. Hake ranks next, the receipts being 12,347,730 pounds, worth \$168,817. Other fish deserving mention are halibut, cusk, pollock, and mackerel."

So much for the year 1891. In the following year more than 90,000,000 pounds of fresh fish were handled by the enterprising dealers of T wharf. Last year it is estimated that upwards of 110,000,000 pounds of fresh fish were distributed from this city in that section of the United States lying east of the Mississippi and north of the Ohio river. What other city in the world can point to the arrival of 950,000 pounds of fish in a single day, as can Boston for the day of February 28, 1896?

It is, however, when we bring the figures for fresh, salt, pickled and smoked fish all together that Boston's fish business assumes its most impressive aspect. The aggregate amount of fish of all kinds and species distributed annually, as far as can be ascertained, is between 250,000,000 and 275,000,000 pounds. This is nearly double the amount distributed from any other port in this country, and far above the output of any foreign competitor.

To secure and bring to market this enormous quantity of fish, 423 vessels and nine steamers were kept busy during 1896, and exactly 4,214 arrivals were registered. The character of that part of these which was landed fresh may be learned from the following table :

SUMMARY OF FRESH HADDOCK, CODFISH, HAKE, CUSK, HALIBUT AND POLLOCK
LANDED AT BOSTON DURING THE YEAR ENDING DECEMBER 31, 1896.

(Furnished by United States Fish Commission.)

<i>Trips</i>	<i>Fishing Grounds</i>	<i>Haddock Lbs.</i>	<i>Cod Lbs.</i>	<i>Hake Lbs.</i>	<i>Cusk Lbs.</i>	<i>Halibut Lbs.</i>	<i>Pollock Lbs.</i>	<i>Total Lbs.</i>
49	Brown's Bank . . .	623,000	444,000	110,200	158,300	113,500	15,750	1,464,750
73	Cash's " . . .	390,100	361,200	334,000	202,700	4,800	31,300	1,324,100
5	Clark's " . . .	44,000	60,000	5,000		13,400		122,400
11	Phippanie's Bank . . .	50,800	34,700	41,000	18,200	2,400	14,000	161,100
544	George's " . . .	9,665,200	4,150,200	565,100	303,000	349,100	40,300	15,062,900
287	Jeffrey's " . . .	1,441,200	466,850	371,300	41,500	7,700	87,400	2,415,950
90	La Have " . . .	735,700	770,000	253,000	192,600	147,400	38,200	2,136,900
357	Middle " . . .	1,551,900	611,400	493,800	23,500	2,800	107,200	2,790,600
1	Roseway " . . .	18,000						18,000
37	Western " . . .	138,500	325,000	106,400	20,300	121,970	14,300	726,470
60	Cape Shore . . .	820,500	639,500	139,000	68,500	44,500	28,000	1,740,000
194	Highland Light . . .	1,215,900	579,900	232,300	5,500	200	21,700	2,055,500
248	Nantucket Shoals . . .	431,400	3,566,500	14,500		1,500	127,700	4,141,600
115	Off Chatham . . .	997,400	357,800	72,200	8,000	2,200	10,400	1,448,000
482	South Channel . . .	6,605,100	4,338,300	2,958,100	273,200	89,850	187,900	14,452,450
1141	Shore . . .	2,969,000	2,822,110	751,300	85,200	11,220	268,600	6,907,430
3694	Totals . . .	27,687,700	19,527,460	6,447,200	1,400,500	912,540	992,750	56,968,150

Standing at the head of Massachusetts Bay, with her great arms ever open to the hardy fishermen who ply their trade at the adjacent fishing banks on the east and the north-east, and the south-east, with her railroads at her back to steam away to the north and the south and the far west, with her steamers and merchantmen at her wharves ready to transport her goods in whatever direction there is water of sufficient depth, with her horses and teams and innumerable methods of distributing fish, the proud and ever growing metropolis of New England points with pride to the position she has taken as a fishing center, poises a golden codfish, as a symbol thereof, over the heads of her legislators in their new Parthenon on the summit of Beacon Hill, and declares that supremacy which she has attained in the past shall be maintained and augmented so long as the enterprise and industry of her citizens are responsible for it.

BOSTON AS AN OLD MATERIAL MARKET.

Boston has always been one of the important markets in the country for the collection and sale of old materials. New England being such a large manufacturing, and important consuming district as well, this is most natural. The diversity of our manufactures and their high development makes them excellent customers for these goods, and the demand for high grades of old materials is greater here than elsewhere. Thus we find old and new rags, both cotton and woollen, carefully collected and sorted, and the supplies of New England, while large, are so far from adequate as to necessitate heavy purchases in the West. The same is true of scrap rubber. The extensive use of machinery and articles containing old metals is so great that the collections are likewise heavy, but owing to the decline in the local iron industry much of the material collected here has to be sent elsewhere.

Boston, years ago, was the leading market for the collection and sale of old metals, the West consigning or selling large amounts to the dealers, who in turn sold to consumers in various parts of the country. The rapid development of the metal industry in the West, however, has narrowed the sphere of Boston as a market in old metals.

Boston excels any other city in the country in the amount of woolen rags, sorted and sold. This industry has grown apace with that of raw wool and woolsens, and its position is relatively as important. As the woolen goods industry of New England makes Boston the largest wool market of the country, so it does the wool shoddy and woolen rag trades. The shoddy manufacturers depend mainly on Boston for their woolen rags; and their annual consumption is about twenty-five million (25,000,000) pounds. In addition to this there are the numerous woolen mills that make their own shoddy and buy their rags in Boston. Their purchases are about as great as that of the shoddy manufacturers, and in all, between forty-five and fifty million pounds of rags are consumed.

In no section of the country are such good woolen rags collected as here, the grades having a national reputation for both excellence of stock and reliability of grades. The sorting of rags by dealers dates back less than twenty years, and to-day a number of large houses do nothing else. Of soft woolsens there are some thirty or more grades, of new or tailor's clips twenty, and of cloth cut and skirted some fifteen. Of the miscellaneous there are a number of grades also. This careful grading by experts enables the manufacturer to buy just the stock he needs for the goods he is making, and thus doing away with much waste, which was occasioned under the old system. Values on woolen rags range from one to sixteen cents per pound.

The shoddy industry, which is centred in and around this city, has had a large and healthy growth of recent years, and promises to expand much in the future. That the business is firmly established was well tested in the past few years, for with a protection of only a fifteen per cent. *ad valorem* duty, it maintained the American market against the competition of the foreign manufacture. Most of the shoddy manufacturers have discarded the old process, whereby rags were reduced to a fibrous state containing both the wool and cotton fibre in the shoddy and now extract about everything which is likely to contain cotton. This is accomplished by two systems, known as the acid and dry processes, which remove all cotton fibre. Owing to the general use of these methods, shoddies are frequently called extracts. In the busy seasons such is the demand for shoddies and extracts from the many woolen manufactures in New England and New York that the mills making the former are obliged to run night and day.

This has always been the leading market for flocks, and Providence, R. I., is second in extent of its product. About all the New England mills that shear or gig goods send their flocks to either market. Large dealers contract for their products and hold them for a market. This class of stock requires very little grading, but the dealers often cut some kinds to make them marketable. Shipments are made from the two cities to mills in various parts of the country.

The amount of wool waste handled here is comparatively as great as that of wool. Large houses contract with the woolen mills for their product for six months and a year in advance. As the amount of waste in the mills is very large, the stock handled is consequently heavy. The dealers act as middlemen, taking the product of the mills and selling it as a substitute for wool. Its purpose is much the same as that of shoddy, but from its very nature brings higher prices, values at times ranging, on the finest grades, as high as twenty-eight (28) cents. The dealers have put up about twenty different grades of wool waste, a large portion of which contains a mixture of cotton, and is sold as such. The divisions according to character are worsted, yarn and card wastes, their comparative values running in the same order. The assortments held here are so complete that buyers in Western States buy largely in this market.

The large number of paper-mills in this section of the country makes Boston's situation a most advantageous one as a paper-stock market. This city not alone receives the bulk of the cotton rags, new and old, obtainable in these six states, but draws from the West and receives large amounts of foreign stock. The old cottons collected in New England have no equal. They are less worn and cleaner than those collected elsewhere. The growing use of wood-pulp, while it has injured the Boston market, has affected it less than other markets where poor stock is sold. Holyoke, Mass., the greatest paper-manufacturing city in the country, draws its supplies mainly from this market. Another important variety of paper stock, though used in low grades of paper, is old papers, which embraces books, ledgers, letters, manilla, and news principally. The production of these here is greater than in any other section of a like population. Dealers take this stock and carefully put it up in some fifteen or more grades. From the cotton and woolen mills thousands of pounds of old factory and burlap bagging are contracted for annually by paper-stock dealers, and sold again to the paper-makers. Manilla rope is handled quite largely in Boston, the vessels coming into port furnishing the supplies. There is not one-tenth of the rope collected now that there was twenty-five years ago, owing to the disappearance of a large number of the sailing craft, and the growing use of wire rigging on those vessels that are left. Much southern and foreign rope also finds its way to this city.

Of the fifteen or eighteen thousand tons of old or scrap rubber handled annually in this country, the greater part is consumed by New England rubber goods manufacturers, many of whom have their main offices in Boston. Purchases are made in all parts of the country, and some is imported. The use of old rubber boots and shoes, and other classes of old rubber stock, as shoddy, hardly dates back thirty years. Its growth of late years has been so great, that the value of the old material has been materially enhanced. Early in the history of the business the market value of old boots and shoes was about one cent a pound. For a half dozen years previous to 1893 its value was three cents, or thereabouts. Since then values have ranged from four to five and one-half cents.

Though New England is not as large a consuming market for scrap iron and steel as it was years ago, it is still an excellent one for collections. No part of the country uses comparatively as much high-class machinery, and, when old, this is thrown on the hands of Boston dealers as a rule. Much of it is re-used here for sundry purposes. The wrought scrap, on the other hand, is sent mainly to Pennsylvania bar iron mills. For several years the price of scrap iron, which has ranged from \$8.00 to \$10.00 a ton, has been largely instrumental in enabling foundries and iron manufacturers here to compete with those elsewhere.

While not holding the monopoly of the old metal trade that it had fifteen or twenty years ago, this city still does a very extensive business. The art of using old metals has been cultivated by the local manufacturers and foundry men to a greater extent than elsewhere, and their consumption of scrap is very extensive. From eighty to ninety per cent. of the new metal that is put upon the market finds its way back again to the manufacturer in the shape of scrap. As Connecticut, Massachusetts and Rhode Island produce the major part of the brass and metal goods of the country, and, necessarily, re-use old metal, one can get some idea of the amount handled here.

THE COMMERCE OF 1896.

The annual report of the secretary of the Boston Chamber of Commerce shows that in 1896 the ocean tonnage entering and clearing at this port, from and for foreign

ports, amounted to 3,457,763 tons, about a fifth of the total foreign tonnage of the country. The arrivals of vessels employed in the coastwise trade were nine thousand six hundred and eighty-four. There were three hundred and sixty-one steamship sailings to European ports, against three hundred and twenty-six in 1895. Eleven steamship lines divide this business—one being Belgian, one German and the rest English. Fifty-four freight lines dispute for Boston's business, and six elevators aid in shipping her grain.

A table of receipts of staple products may give some notion of the extent of Boston's commerce :

RECEIPTS AT BOSTON, CALENDAR YEAR 1896.

Flour—bbls.	1,275,291	Raisins—boxes	127,787	Tin plate—boxes . . .	189,930
Flour—sacks	1,584,898	Figs—packages	7,240	Window glass—boxes .	337,629
Wheat—bushels	13,427,724	California fruit—cars .	524	Plate glass—packages .	567
Corn—bushels	9,805,873	Strawberries—crates .	190,950	Potash—packages . . .	6,726
Oats—bushels	8,092,908	Cranberries—crates . .	38,349	Soda ash—packages . .	68,631
Rye—bushels	193,300	Other berries—crates .	80,339	Bleach'g powder—pkgs.	27,848
Barley—bushels	418,287	Pork—bbls.	22,530	Leather—sides	5,459,329
Peas—bushels	83,789	Beef—bbls.	7,066	rolls	340,069
Malt—bushe's	1,425,795	Lard—tierces	68,359	bundles	433,597
Oatmeal—bbls.	81,594	Lard—cases	14,448	bales	70,896
sacks	48,208	Lard—packages	542,098	bags	184,228
Cornmeal—bbls.	47,025	Hams—pounds	9,560,659	cars	1,271
Millfeed—tons	29,691	Tallow—bbls.	14,600	bbls.	2,058
Cottonseed meal—tons		Tallow—tierces	7,797	packages	329
Hops—bales	8,585	Bacon—boxes	312,201	cases	16,342
Butter—pounds	50,972,255	Grease—packages . . .	32,163	Goatskins—bales . . .	18,525
Cheese—boxes	476,526	Tongues—bbls.	3,853	Dry hides—bales . . .	9,760
Eggs—bbls.	1,911	Fresh beef—cars . . .	13,105	number	449,183
cases	871,059	Live hogs	1,421,503	Green hides—bales . .	168,542
Olio—packages	13,552	Dressed hogs	2,276	number	54,117
Poultry—packages . . .	192,236	Preserved meats—cases	182,697	Kips	5,222
Hay—cars	15,605	Tea—packages	190,167	Calfskins—bales . . .	36,644
Straw—cars	1,311	Coffee—packages . . .	201,420	number	12,890
Beans—bbls.	85,373	Cocoa—packages	4,778	Hides and skins—bbls.	
Potatoes—bushels . . .	2,896,503	Salt—tons	30,411	and casks	7,053
Sweet potatoes—bbls. .	183,223	Salt—bushels	678,171	Pelts—bundles	14,873
Onions—bbls. and pack-		Canned goods—cases .	447,829	number	426,123
ages	139,318	Sugar—hogsheads . . .	15,206	casks	3,194
Evap. apples—cases . .	40,780	bbls.	21,229	bales	217
Apples—bbls.	871,618	baskets	228,864	Live stock—cattle . .	225,854
Peaches—packages . . .	438,943	bags	1,051,650	sheep	666,451
Watermelons	651,592	tierces	94	veals	82,477
Oranges—boxes	426,160	Molasses—hogsheads .	10,675	fat hogs	1,421,503
Lemons—boxes	321,528	bbls.	55,601	pigs	9,535
Bananas—bunches . . .	1,877,849	tierces	991	horses	34,468
Pineapples	1,499,513	punchions	3,893	Coal—tons	3,649,898
Cocoanuts—bags	60,533	Rice—packages	23,438	Cotton—bales, domestic	572,899
Peanuts—bags	41,603	Lumber—feet	297,360,000	bales, foreign	53,537
Dates—packages	26,294	Hemp—bales	312,173	Wool—bales, domestic	442,054
Grapes—bbls., baskets,		Flax—bales	34,824	foreign	211,479
carriers	2,975,427	Jute—bales	71,971		

Such is the commerce of Boston. The men who have helped to build it, the men who are building it to-day, have had at heart something more than money. If Yankee shrewdness has become proverbial there is something to be said also of the

Puritan conscience. Never before in this city have there been so many trade organizations for mutual advantage and the common good. It is recognized now that a good dock means something more than profit to the owner, and that the needs of the harbor demand from the citizens public action, as well as private comment. No longer does Boston capital neglect its own door-yard to improve the Western prairies. The community has learned the lesson of mutual trust and united action in business as well as in politics.

In one trade after another selfish secrecy and hate have given way to mutual confidence and good fellowship. The Calcutta trade has gone, the China trade has gone, and the mean-spirited envy that once controlled our dry-goods trade, has moved the seat of the dry-goods commission trade from Boston to New York. Yet these losses disappear in the vastly greater gains.

Boston more than holds her own, with a large and growing foreign trade, and a domestic traffic that increases yearly, rapidly and relatively. In four great lines of merchandise the city dictates prices to the country. It is far in the lead as the second port in the country, second in foreign commerce, second in correspondence, second (if our suburbs be added as in other cities) in population, but second to none in commercial integrity and business honor.



CHAPTER CXLIII.

INDUSTRIAL.



WORCESTER has attained a prominence as a manufacturing centre second to but few cities in this country. Its interests are so diversified that within its limits are produced almost everything necessary to the comfort and happiness of civilized man.

Here are manufactured looms, that in neighboring plants are weaving cottons and woollens, operated by power from boilers and engines made in Worcester's machine shops.

WASHBURN & MOEN MANUFACTURING COMPANY, the largest producers of wire of every description in the world, had its incipency in 1820, when Ichabod Washburn and William H. Howard formed a co-partnership, for the purpose of manufacturing woolen machinery. Mr. Howard soon after retired, Mr. Washburn buying his interest, and forming a new firm, with Benjamin Goddard as his associate. In 1835 this firm was dissolved, Mr. Goddard remaining and continuing the manufacture of woolen machinery, while Mr. Washburn engaged in the manufacture of wire exclusively, in a three-story brick building, 40 x 80 feet, erected for him on Mill brook (the site of the present North works,) by Stephen Salisbury, Sr. The same year, 1835, Mr. Washburn's brother Charles, a member of the Maine bar, came to Worcester, and a co-partnership was formed that lasted for three years, Charles retiring in 1838.

In 1840, Ichabod Washburn, having prospered in his undertaking, purchased the South Worcester land and water power, and erected the present works of the Worcester Wire Company. This mill he placed in charge of his former partner, Mr. Goddard, who managed it up to the time of his death, in 1867. At that time, Charles Washburn again became a member of the firm. In 1847, a new impetus was given to the wire-manufacturing business.

The telegraph had passed from the experimental to the practical stage, and lines were being extended in every direction, causing a vast increase in the demand, which Mr. Washburn was one of the first to provide for. From 1837 to 1847, all the iron billets used by Mr. Washburn for working wire and rods, were purchased in Sweden. In 1847, the Washburns bought the Lincoln family property, at Quinsigamond, now the South works of the company; the firm of Washburn, Moen & Co. (Henry S. Washburn, Charles Washburn, and Philip L. Moen), was organized, a complete new mill was erected, and the business of rod-rolling and wire-drawing was established on a large scale.

January 12, 1849, the firm dissolved, Mr. Henry S. Washburn becoming sole proprietor. On the first of the same month, the co-partnership between I. and C. Washburn was terminated, and in the partition the wire mills fell to Ichabod, Charles accepting the ownership of the Quinsigamond works. April 1, 1850, Mr. Philip L.

Moen, who had been one of the firm in the Quinsigamond plant, was admitted to a co-partnership with Mr. Ichabod Washburn, and from that day to his death was identified with the business.

By mutual agreement, the co-partnership between H. S. and Charles F. Washburn in the Quinsigamond mill was dissolved in 1857, and on May 1st, of the same year, Messrs. Charles and Charles F. Washburn assumed proprietorship. Henry S. Washburn erected a new wire factory, and continued business alone.

In 1866 the concern of Washburn & Moen was incorporated as the Washburn & Moen Wire Works, for the manufacture of wire and wire rods, and cotton goods; capital, \$600,000. February 24, 1868, was effected a consolidation of the Washburn & Moen Wire Works and the Quinsigamond Iron and Wire Works under one management. The name chosen was the Washburn & Moen Manufacturing Company. The original capital was \$1,000,000, which was increased in May, 1869, to \$1,500,000. The attention of the company having been directed to barbed wire in the spring of 1876, they became impressed with its value, and were in the midst of experiments, looking to its economical production, when the first furnace for making Bessemer steel was put into successful operation, and the problem of material was solved. Control of barbed wire patents was acquired, automatic machinery devised, constructed, and patented, and in a short time the company was fully enlisted in the new industry.

This, however, is but one of many specialties to which they devote their attention, and their output of iron, steel, copper, brass, electro-plated and galvanized wires for all purposes—bale ties, wire rope and wire nails—is simply enormous, the items of telegraph and telephone wires alone aggregating in value millions of dollars annually.

In 1850 Mr. Ichabod Washburn's attention was attracted to the making of steel wire for piano-fortes, and at the suggestion of Mr. Chickering, the great Boston piano manufacturer, he experimented so successfully that the English music wire was driven out of the American market, leaving this establishment the only one on this side of the Atlantic that produces this class of wire. The plant, comprising a great number of one, two, three, four and five-story buildings, a part of which are situated on Grove street and the remainder at Quinsigamond village, embraces in all twenty-five acres of land. Four thousand men are employed. The capital stock is now \$4,000,000. Officers: William E. Rice, president; Philip W. Moen, treasurer and general manager.

THE WORCESTER MACHINE AND SCREW CO.—This concern is prominent among the noteworthy manufacturing institutions of Worcester, and occupies a foremost position in the list of screw manufacturers, not alone of New England, but of the country. This company was established in 1866 by A. N. Gifford and E. A. Bagley. These gentlemen were the pioneers in the now great industry of manufacturing *machine* screws, such as are turned or milled from the bar, for the market. Formerly such screws were made at great expense and trouble by the users. Mr. Bagley retired from the business in two or three years, and it was continued for nearly four years by Mr. Gifford as sole proprietor.

At the expiration of this time the business, having met with marked success, Mr. Gifford became desirous of enlarging his capacity and facilities of manufacture, and having interested New York capitalists, the Worcester Machine and Screw Company was formed about 1873, and remained in the hands of the organizers for a period of five years, when, in 1878, Mr. Gifford again became sole owner of the business and has since managed it alone, retaining the company name.

The plant, located at 75-77-79 Beacon street, is an extensive one, consisting of a three-story building, 250x36 feet, with additions for iron-room, stock-room, case-hardening room, shipping-room and offices, and it is equipped, for the most part, with special machinery, devised and constructed on the premises. About one hundred men are employed.

WORCESTER FERRULE AND MANUFACTURING CO.—Mr. Edward Converse, sole proprietor and manager of this company, established the business in 1883. About one hundred hands are employed in the large shop at 100 Beacon street, in manufacturing bicycle fittings, stove trimmings, steam-pipe collars, ferrules and other specialties. Mr. Converse makes a specialty of flush joint bicycle fittings, fork crowns, frame connections, tees, crank hangers, etc.

THE COATES CLIPPER MANUFACTURING CO. was incorporated under the laws of Massachusetts in 1894 with a capital of \$15,000. The business was established in 1877 by Mr. G. H. Coates, who is the president and treasurer of the present company. This concern is one of the largest in the world manufacturing their specialties, which consist of horse and barbers' hair clippers, and power clippers, run by hand, steam or electric power, and also a flexible shaft used for graining and various other purposes. The plant is a spacious one, consisting of a two-story building on Chandler street, 150x50 feet, and is most excellently equipped, having its own electric light and power plant, nickel-plating department, and most modern machinery.

THE HOLYOKE MACHINE CO. was founded and incorporated in 1863 with a capital of \$30,000, and the plant was located at Holyoke, where the company began the manufacture of water-wheels and paper machinery on a small scale. They are now among the largest manufacturers of paper machinery in the United States, operating, in addition to the Holyoke plant, extensive works in Worcester. The two combined have a floor area of about 220,000 square feet. About seven hundred hands are employed in making their output, which has a value of \$1,200,000 a year, and is shipped to all parts of the world. The capital has been increased a number of times, and is now \$300,000. W. H. Whitten, president; Stephen Holman, treasurer; H. G. Frink, general manager.

TABER ORGAN CO.—This company was incorporated in 1877 for the manufacture of chapel and parlor organs, of which they make about fifteen hundred per year, employing sixty workmen. About one-half of the product is exported to England and the English colonies in Africa. F. H. Clark, president; N. H. Ingraham, treasurer.

OSGOOD BRADLEY & SONS, manufacturers of railroad cars of every kind, were established in 1852 by Osgood Bradley, who was succeeded by his sons, Osgood Bradley, Jr., and Henry O. Bradley. Upon the death of Osgood, Jr., in the latter part of 1896, the management of the business came into the hands of Henry O. Bradley alone. When running at full capacity this firm has employed one hundred and seventy-five men.

J. J. WARREN CO. This business was established in Boston in 1883, by Mr. James J. Warren, who began the manufacture of fine leather and canvas goods of every description. In 1887 the business was removed to Worcester, where the company occupy most of the spacious Warren Building on Washington square and Foster street. Prosperity has attended this firm since its establishment, and six salesmen are now engaged in disposing of the output in every section of this country. The production is very large and covers a multitude of articles in leather and canvas. Leather dress-suit valises, canvas extension cases, steamer

trunks, bicycle-saddle leathers, and tool bags, luggage carriers, straps, sample cases, toilet cases, music and sporting goods, are but a few of their specialties. Officers: John M. Warren, president; William H. Hayden, treasurer; Walter F. Davison, secretary.

HAMMOND REED CO.—This business was founded about 1848 by Augustus Rice, who a few years later took Edwin Harrington into partnership, the firm-name becoming Rice & Harrington. After a short period Eliphalet Holbrook and James Estey joined the firm, and the business was continued by these four gentlemen until 1858, when they sold out to Alfred and Lorenzo Davis, the firm-name then becoming A. Davis & Co. In 1860 Mr. A. H. Hammond purchased a third interest in the business, and Lorenzo Davis sold out to Alfred Davis the next year. A year or two later Mr. Hammond bought out Mr. Davis, thereby becoming sole proprietor, and managing the business alone for five or six years, when he took into partnership Mr. A. A. Goodell, continuing as A. H. Hammond & Co.

Mr. Goodell remained a partner for about three years, when Mr. Hammond again became sole owner, conducting the business under the company name until 1892, when it was incorporated as the Hammond Reed Company, with A. H. Hammond as president and treasurer and R. H. Hammond as vice-president and assistant treasurer, and a capital of \$100,000. The production of the company consists of reeds and reed-boards, couplers, tremolos and other organ material, which are sold to organ manufacturers of the United States, England, Sweden, Germany, Denmark, Russia and Holland.

This business started in a small room at the north end of the junction shop on Southbridge street, owned by James Estabrook. Three years later it was moved to larger quarters in the south end of the same building, and in 1868 Mr. Hammond built a portion of the present commodious factory on May street, adding to it until now there are 50,000 square feet of floor area, one-half of which is occupied by the Brown & Simpson Piano Company. About fifty hands are employed by the Hammond Reed Company.

THE WACHUSETT MILLS were established in 1888 by Harry W. Smith and incorporated in 1894, with Harry W. Smith as president and Frank B. Smith as treasurer. They manufacture specially designed patent fabrics in silk, flax and cotton for the corset, clothing and shoe trades; also make linings, and are the sole manufacturers of patent copying press cloth for Cameron, Amberg & Co., and silk net, under the Stowe ventilated shoe patent, and exclusive designs of corset nettings under designed patent of Harry W. Smith.

LORING COES & CO.—This business was established in 1830 by Moses Clement in the same location as the present plant, and was acquired by purchase, together with water privilege and fixtures, by Loring Coes and his brother, A. G. Coes, in 1840. The business was conducted jointly by the brothers until 1863. They manufactured machine knives, hay cutters and machine-edge tools.

In 1864 the partnership was dissolved and Mr. Loring Coes became sole proprietor of the business, and it has been continued by him to the present day, the plant having been enlarged several times. The most recent enlargement, made in 1895, doubles the capacity of the plant. About thirty-five hands are employed in making the specialties, consisting of blades for woolen, paper and wood-working machinery. The haycutter and ensilage business has continued as a secondary production, the line not having the fine finish of the others. The machinery in the plant is entirely of Mr. Coes' invention, and there is none other like it in the world. The output in the higher grades sells from five per cent. to fifteen per cent. above that of any other

similar concern in the country. Mr. Frederick Searles is superintendent, and the financial department is managed by Mr. Frank Coes.

HOWARD, CUTLER & LAMB.—This firm, established in 1893, manufactures machine, card-clothing and wire heddles. Practical and expert workmen are employed, and their production, which is sold both to jobbers and direct to manufacturers of cotton and woolen goods, is warranted in every particular. The machinery with which the plant is equipped is of the latest and most improved type. This firm make the longest heddles made in the country. The three members, C. A. Howard, A. T. Cutler and F. M. Lamb, are practical and expert mechanics.

EDWARD M. BLISS established his business in 1882, and from a small beginning it has increased till now he employs about twenty-five hands in his shop and fifty in crocheting at home. Mr. Bliss' specialties are lambs' "Ideal," "Model" and "Eclipse" wool soles and the "Ideal" hand crocheted slipper, the sole of which he patented in 1893. The production, which is very large, is disposed of principally to jobbers.

THE MORGAN SPRING COMPANY was incorporated in 1881, with a capital of \$10,000, and C. H. Morgan as president and F. H. Morgan as treasurer. The capital has been increased at various times until now it is \$50,000, but the officers have remained the same. The plant, located at Barber's Crossing, is an extensive one, consisting of twelve acres of ground, and buildings with a floor area of sixty thousand square feet. One hundred and fifty hands are employed in the manufacture of tempered steel springs of practically every description. The Morgan Spring Company were pioneers in this line of manufacture.

THE MORGAN CONSTRUCTION COMPANY was incorporated in 1891, with a capital stock of \$10,000, which has since been increased to \$50,000. Charles H. Morgan is president and treasurer, and Paul B. Morgan is secretary. They are manufacturers of the most approved type of rolling mill, wire-drawing and hydraulic machinery. Much of their machinery may be found in all the largest rolling and wire-drawing mills of this country and foreign parts. The plant, located on Lincoln street, near Lincoln square, has a floor area of forty thousand square feet. Seventy hands are employed.

WELLS CHEMICAL BRONZE WORKS are manufacturers of nickel-plated and bronze figures for doors, church pews, etc., brass, copper, tin, zinc, composition and lead castings; also Babbitt metal. L. H. Wells, agent.

THE GRATON & KNIGHT MANUFACTURING COMPANY was established in 1851 as Graton & Knight and incorporated under present firm-name in 1872. This firm is one of the largest manufacturers of leather belting in this country, their plant having a floor space of over four acres, and the company's tannery has a capacity of over one hundred thousand hides annually. In addition to their great specialty of oak-tanned leather belting, they conduct departments for the manufacture of loom, machine, blanket and other straps, cycle saddles, and boot and shoe counters, insoles, taps, etc. The latter department is known to the trade under the style of the Worcester Counter Company. The capital stock is now \$700,000. Officers: Joseph A. Knight, president; Henry C. Graton, treasurer; Walter M. Spaulding, secretary.

THE MASON & RISCH VOCALION Co. was established in 1889, and incorporated in 1892. This company makes a specialty of building organs for churches of small and medium size, and for private music rooms; the latter, being made to order and frequently built from plans by the architect designing the house, are magnificent and very beautiful. They also manufacture automatically-playing organs of the more costly type. Their instruments are handled by representatives in all the chief cities

of the country, and quite a large export business is done with Canada, Mexico, Europe and Australia. Seventy-five hands are employed in the factory. T. G. Mason, president; V. M. Risch, Vice-president; A. J. Mason, Jr., secretary and treasurer; Mr. S. Wright, mechanical superintendent.

THE WILLIAM H. BURNS CO.—This firm was founded in 1883 for the manufacture of muslin underwear by William H. Burns and J. T. Baker, who began business under the name of Baker & Burns, having the upper story of Clark's block on Front street before the building was fully completed. The space occupied for manufacturing purposes was about five thousand square feet and fifty sewing machines were in operation. In the following year they increased the number of their machines to one hundred and fifty, and occupied double the amount of room, and though running all the year round they were unable to keep pace with their orders. In 1884 Mr. Burns bought out his partner's interest and conducted the business alone till 1888, when he admitted Mr. Harry S. Green, his brother-in-law, into partnership, and the firm became William H. Burns & Company.

To accommodate the rapidly increasing business a large five-story building was erected in 1888 on Park street, corner of Salem. The first story, or ground floor, is occupied by stores. On the second floor are the spacious offices, shipping and stock rooms of the underwear business; the third and fourth floors are used for manufacturing purposes; the fifth floor is occupied as a cutting room and for storage. There is also a large dining and reading room, with a piano for the accommodation, comfort and recreation of the employees. This mammoth factory is replete with every new improvement which ingenuity and skill can contrive. Some twenty new machines, of their own invention, for special work are in daily use, besides eight hundred sewing machines, button-hole making machines, button-stitching machines, and double-needle machines for making double seams on garments. This firm uses annually more than three million yards of white muslin, which is made expressly for them, in the making of their daily production of one thousand dozens of ladies' under-garments in some five hundred styles. The firm was incorporated the 1st of October, 1892, with a capital of \$150,000, and with William H. Burns as president and treasurer, and James C. Burns as clerk.

NORCROSS BROTHERS.—This famous and leading firm of contractors in New England is composed of James A. and Orlando W. Norcross. They were first established at Swampscott, Essex county, in 1864, as carpenters and builders on a modest scale. Four years later they removed to Worcester and began laying the foundations of the vast business enterprise of which they are now the proprietors and managers. A few of the many notable structures erected by them are the Allegheny county court-house and jail, at Pittsburg, Pa.; Union League club-house, New York; Algonquin club-house Boston; Trinity church, Boston; Union depot, at Springfield, Mass.; F. L. Ames building, Exchange building, and Tremont building of Boston.

THE HOWARD BROTHERS MANUFACTURING COMPANY was first established in 1866 at No. 6 Washington Square, near the Union Station, the firm then being Howard & Farnsworth. In 1867 A. H. Howard was taken into the concern, and the firm then became Howard, Farnsworth & Company. In 1868 Mr. Farnsworth retired, and the firm became Howard Brothers. In 1869 Mr. J. P. Howard was admitted into partnership, but in August, 1887, he died, and in May, 1888, the concern became a stock company, being incorporated under the laws of Massachusetts with a capital of \$45,000.

During this time they had been doing a large business in cotton and woolen band cards, having mills in Vermont and New Hampshire for supplying the card-

boards for the same; but this branch of the business was sold out at this time to L. A. Watson & Co., of Leicester, in order that they might give their undivided attention to the manufacture of machine card clothing and machine wire heddles.

In 1890 the American Card Clothing Company was formed, but this company declined to join the syndicate. Since that time they have more than doubled their capacity in machinery and production. Their present capacity for the manufacture of wire heddles is 90,000 per day. It takes one hundred and fifty cattle per week to supply this concern with leather. The plant, located at No. 32 Vine street, consists of a four-story building, 100 x 45 feet, with basement; a boiler and engine-house separate, and a grinding-room, a one-story fire-proof structure, 20 x 30 feet. The present officers of the company are: A. H. Howard, president, treasurer, and general manager; R. W. Knight, secretary.

THE WORCESTER CARPET COMPANY, owned and managed by William James Hogg, and his son, William F. Hogg, was established in 1870 by the Crompton Carpet Company, under whose management it prospered until 1879, when Mr. William James Hogg, an experienced practical carpet weaver, purchased the plant, and has since successfully directed the enterprise under the name and style of the Worcester Carpet Company. The plant is a very extensive one, consisting of the two buildings known as the Packachoag mills, where the raw wool is assorted, scoured and spun into yarn, and the three mills occupied by the Worcester Carpet Company, for weaving the best grades of Wilton and Brussels carpets, and their patented fabric, known as the Burnah rug, which is a reversible body Brussels, having a face on both sides. There is also a large storage warehouse for storage of wool.

All the wool used in these mills is imported. The output, which is very large and of great value, is handled by Messrs. T. G. Keveney & Co., whose offices are located at 20th and Broadway, New York; the Bourse building, Philadelphia; on Fifth avenue, Chicago, and at Omaha, Neb.; and their salesmen distribute products of the Worcester Carpet Company throughout the United States. Mr. William James Hogg purchases the wool, of which a very large quantity is bought annually. His son, Mr. William F. Hogg, has now assumed active management of the business.

RICE, BARTON & FALES MACHINE AND IRON CO., manufacturers of paper machinery, employ about two hundred hands. Officers: Charles S. Barton, president and treasurer; George B. Witter, secretary.

WHITWORTH MANUFACTURING CO.—This business was established in 1892 by William Whitworth, for the manufacture of sectional pipe boilers for heating houses, churches and public buildings. The point of superiority claimed for these boilers is, that the sectional system allows for the contraction and expansion of the metal, whereas, in the old style, no allowance being made for these conditions, the threads are destroyed, ultimately causing leakages, etc. Mr. Whitworth is also the Worcester agent for the "Winchester Heater," manufactured by Smith & Thayer, of Boston. In addition to making boilers, Mr. Whitworth has invented and manufactures an automatic regulating clock for opening or closing draughts, feeding horses, etc. Office, 24 Pleasant street. Factory, 6 Winchester street.

LUTHER SHAW & SON, brass founders and manufacturers of Babbitt metal and solder, established themselves here in 1880. The success of the concern was immediate, and a fine business was being built up when, four years later, the senior member, Mr. Luther Shaw, died, leaving all his interests in the hands of his son, Mr. Charles L. Shaw. The foundry and shops at No. 29 Jackson street occupy the entire brick building, two stories and basement, forty by forty feet. The specialties comprise brass castings of every description, together with composition zinc, lead and

white metal castings for all conceivable purposes, and the manufacture of Babbitt metal and solder for the trade.

HATCH & BARNES, manufacturers of doors, sash, blinds and fine builders' finish. Practical stair-builders. Panels, balusters and rails constantly on hand, and made to order. Wood-turning a specialty. Office, 163 Union street. This firm is composed of Messrs. Geo. Hatch and F. W. Barnes, and was established in 1882. About sixty hands are employed.

THE CHARLES BAKER CO. was established in 1855, and incorporated in 1894. This is one of the largest lumber firms of Worcester county. They are dealers in hard, soft and kiln-dried lumber, and manufacturers of doors, sash, blinds and fine builders' finish, packing-boxes and box-shooks. Officers: Charles Baker, president; Wm. J. Baker, vice-president; Charles Baker, Jr., secretary. Office, 82 Foster street.

THE AMERICAN CARD CLOTHING CO. was incorporated June 4, 1890, with general offices at Worcester, and factories at Leicester, Worcester, Philadelphia, Walpole, Providence, North Andover Depot, Manchester, Lowell and Lawrence. This company are manufacturers of every description of card clothing, surface, side-ground or needle point, and are owners of exclusive American licenses for the patent flexi-fort card clothes. Officers: Joseph Murdock, president; Charles A. Denny, vice-president and general manager; Edwin Brown, treasurer; H. Arthur White, secretary. General office, Knowles building, 518 Main street.

WORCESTER GAS LIGHT CO. was incorporated in 1851. The present capital is \$500,000. Officers: Charles Dudley Lawson, president and general manager; James P. Hamilton, treasurer and clerk.

WHELOCK ENGINE CO.—See biography of Jerome Wheelock elsewhere in this work.

WORCESTER CORSET CO.—Among those who have contributed very largely to the building up of the corset industry in this country, is the Worcester Corset Company, whose factories are located at Worcester, Mass., and who have a branch salesroom in Chicago, Ill., and offices in New York city, Philadelphia and Boston.

The business of this Company, which has now grown to immense proportions, was originally founded by its present head and president, Mr. David H. Fanning, in 1861.

Prior to this time, Mr. Fanning had been engaged in the manufacture of hoop skirts, and had established the business of the Worcester Skirt Company, which was afterwards merged into that of the Worcester Corset Company.

The business has known a steady and increasing growth from the time of its foundation, the growing demands for goods manufactured by them necessitating removals upon several occasions from cramped quarters to more spacious and convenient, until now they are located in their new and handsome factory, built by themselves, and said to be the finest and best equipped factory in New England, if not in the entire country.

WORCESTER WOOLEN MILL CO. was organized in 1890 with a capital of \$90,000. E. D. Thayer, Jr., president and treasurer; J. Talcott, 108 Franklin St., New York, selling agent. The product is cassimeres.

WRIGHT & COLTON WIRE CLOTH CO. was incorporated in 1889 with a capital of \$50,000. The capital is now \$100,000. George F. Wright, president; S. H. Colton, treasurer; Herbert M. Wright, manager. For a detailed history of the development of this large concern see biography of Mr. Geo. F. Wright elsewhere in this work.

W. H. HILL ENVELOPE CO., organized in 1892. Capital, \$65,000. Charles W. Gray, president; George H. Hill, treasurer.

UNION WATER METER CO.—Capital, \$75,000. Organized 1868. J. C. Otis, president and treasurer.

WORCESTER CHEMICAL MANUFACTURING CO.—Levi Lincoln, treasurer.

T. H. BUCKLEY, designer and manufacturer of "White House" café wagons of every description. Mr. Buckley operates and controls fifty cities in different sections of the United States and keeps new and second-hand lunch wagon always on hand for sale. The wagons are covered by Letters Patent, dated January 10th and August 22nd, 1893, and January 23d, 1894.

SPENCER.—**EDWARD E. STONE & CO.** This business was established by Mr. Edward E. Stone, a veteran Worcester county lumberman, who later admitted into business with him his son, Ralph B., and son-in-law Everett V. Prouty. On the afternoon of September 13, 1893, the plant, together with a great amount of lumber in the mill yards, was burned, entailing to Mr. Stone a loss of \$25,000. The day after the fire, Edward E. Stone & Co. set to work to rebuild their factory, and they determined that the new factory should be a model of its kind; and for thoroughness of construction, completeness of equipment and general arrangement the new lumber-manufacturing plant is probably without an equal of its kind in Worcester county. The product consists of all descriptions of lumber, sash, blinds, interior finish, boxes, and box shooks.

A great variety of the most improved machinery is used to which are attached blow-fans, which deposit all saw-dust, shavings, litter and refuse in front of the boiler, where this waste material is consumed in supplying the power operating the plant. The company trade extends to all sections of Worcester county. Lumber in all kinds and forms is sold by the company, and its yards are always filled with selections.

FITCHBURG.—The town of Fitchburg, originally a part of Lunenburg, was founded in 1764, being named for John Fitch, an influential resident, and incorporated as a city in 1873. Primarily Fitchburg was indebted to the north branch for the establishment of manufactures in its midst, but the stream long since proved inadequate to the demand for power and was for the most part abandoned for that purpose, steam being substituted.

The manufacture of woolen goods at this point had its inception in 1793. The manufacture of hardware and tools in 1838. The Putnam Machine Company, founded about 1858, was the first to engage in that industry, now represented here by several extensive establishments of world-wide reputation. The manufacture of paper, one of the chief industries, chairs, furniture, woodware and many other useful commodities swell the industrial output to vast dimensions.

THE SIMONDS ROLLING MACHINE COMPANY.—This company is the result of costly experiment and diligent research on the part of Mr. George F. Simonds. The rolling machine, from which the company takes its name, is one of the most wonderful inventions of the age, and it is made only in these works on this side of the Atlantic. The firm was inaugurated in 1886 for the manufacture of bicycle balls, pedal pins, crank axles, pins for Westinghouse and other car brakes, and other specialties of this kind, requiring perfect accuracy. The business from the first met with an almost unprecedented success among the manufacturers of Fitchburg, and in 1896 a large new plant was erected, the main building of which is 150x125 feet in dimensions and two stories high with basement. This plant employing skilled hands is kept constantly running, being operated both day and night.

Over sixty railroad corporations obtain their brake-pins at this establishment, and every bicycle manufacturer of the United States is a customer of this firm. The

officers are: George F. Simonds, president; G. W. Weymouth, vice-president and general manager; Edward Sawyer, general manager.

THE SIMONDS MANUFACTURING CO. is one of the oldest and most important of Fitchburg's industrial concerns. It was organized in 1832 by Abel Simonds, who began the manufacture of scythes and edge-tools in West Fitchburg. The business passed from the founder to his sons, and was re-organized by them in 1864, and four years later was incorporated under the present style and title. The works were removed to their present location, corner North Main and Willow streets, in 1868, and have been enlarged from time to time to meet the requirements of the increasing trade. The buildings now cover an area of about one and a half acres, and about two hundred workmen are employed. The products of these works comprise solid-circular, inserted-point, crescent-ground, cross-cut, gang, mill, rimlay and drag saws of every description. The Simonds saws are known in every quarter of the world as possessing superior merit. The firm also manufactures every description of machine knives in use. They have a large branch factory in Chicago, and are represented by salesmen throughout the country, and on the Pacific coast by the Simonds Saw Company of San Francisco and Portland, Oregon. The officers are: Daniel Simonds, president; H. F. Coggshall, treasurer; H. B. Eaton, secretary; C. A. Hubbell, superintendent.

CROCKER, BURBANK & CO.—This firm dates from 1850, when Alvah Crocker and Gardner S. Burbank, both of whom had previously manufactured on their own account, formed a co-partnership, and the business of Crocker, Burbank & Company was established. Though both founders have passed away, the business has prospered. With scarcely an exception, each succeeding year has shown an increase in volume over the preceding, and it is still conducted under the time-honored name. At the beginning the firm had but one mill, with an output of about one thousand five hundred pounds per day; but new mills have since been built or acquired, until now seven factories are operated night and day, and the output is about forty-five tons per day. Two hundred and seventy-five people are employed. The product consists of news, book, card and lithograph papers, and is sold largely to the consumers direct, but a portion is disposed of through large jobbers. The firm now consists of Charles T. Crocker, George F. Fay, Alvah Crocker, George H. Crocker, Edward S. Crocker and Charles T. Crocker, Jr.

IVER JOHNSON'S ARMS AND CYCLE WORKS.—Manufacturer of firearms, bicycles and police goods, established 1871. (See also biography of Iver Johnson elsewhere in this work.)

THE PARKHILL MANUFACTURING CO. was established in 1879 by John Parkhill, Arthur H. Lowe, and Thomas R. B. Dole, and was incorporated in 1882 with J. Parkhill as president, and Arthur H. Lowe as treasurer and secretary. This is now the largest manufacturing concern of Fitchburg. The company operates three large mills known as A, B, and C. A was originally the Davis Chair Factory. C was formerly occupied by the Cleghorn Manufacturing Company. Mill B, formerly known as the Fitchburg Woolen Mill Company, was originally one of the first cotton mills of the United States, having been erected in 1807, the Parkhill Company commenced with only thirty looms, manufacturing ladies colored dress goods in cotton, worsted and silk fabrics. They now operate 2,300 looms, having a floor space in their three mills of about eight acres, and give employment to 1,200 hands. This is now the third largest concern of the kind in the United States, and has lent as much to the growth of Fitchburg as any of its important industries. The product of these mills is disposed of through commission merchants of the country.

THE FITCHBURG PAPER CO. was founded in 1864, and in 1869 Mr. Rodney Wallace became sole proprietor, and managed the business alone until 1879, when he admitted his two sons, Herbert I. and George R., to the firm. The present plant comprises four mills, located in West Fitchburg, and 200 hands are employed in making book, lithograph and wall-papers.

FALULAH PAPER CO.—The mills of this company are located on the Nashua river, in South Fitchburg. This firm was established in 1887 by Messrs. Seth L. and Albert N. Lowe, who had acquired possession of the mills erected in 1884, by the Snow Paper Company, but operated by that company only one year. In 1889 Mr. Herbert G. Lowe was admitted to an interest in the business, and in 1892 Mr. Frank E. Lowe became a member of the firm. At first it was the intention of Messrs. Seth L. and Albert N. Lowe to confine themselves to the manufacture of manilla wrapping-paper, but six months later the manufacture of manilla box and tag board was begun. The second year coating was taken on, and these are the only mills in the country making and coating box-board paper. The rapid increase in the business made additional room and machinery necessary, and several large brick buildings have been added, giving these mills a floorage of over 73,000 square feet. The works are often run night and day. Ninety hands are employed. This company also manufacture bond stock and heavy papers for lithograph work. Much of the success of this firm is due to the efficient management of Mr. Albert N. Lowe.

D. M. DILLON, the originator of the present style of steel-plate boilers, established his boiler-works in 1870, and has been successful from the beginning. He employs about fifty hands in the manufacture of steam-boilers, and tank and plate iron work of every description. This plant has a floor area of 27,000 square feet, and an acre of yard room. Mr. Dillon has recently made improvements which will greatly increase the capacity of his plant, and he has fitted his establishment with the most modern of boiler-making machinery. In 1896 boilers aggregating 11,600 horse-power were made by Mr. Dillon.

THE JOHN BECKER MANUFACTURING CO. was founded by Mr. John Becker in Boston, in 1869, for the manufacture of machine tools. In 1891 he removed his business to Fitchburg, where he had erected an extensive plant consisting of a two-story main building, 150x50 feet in dimensions, and an L, 50x50 feet. Mr. Becker is the sole proprietor of this business, and makes a specialty of his improved vertical, spindle milling machines. Their many superior features are the inventions of Mr. Becker. These machines are sold to agents and direct to consumers in all parts of the world.

THE FITCHBURG STEAM ENGINE COMPANY was incorporated in 1876, with H. W. Page, as president, and Frederick Fosdick, treasurer. About eighty hands are employed in manufacturing stationary steam engines from patents owned exclusively by this company. The points of superiority in these engines are their simplicity, economy of fuel, close regulation of speed, excellence of workmanship and great strength of parts. They are made from fifteen hundred horse-power down. About eighty hands are employed in their manufacture, and the value of the output is over \$150,000 a year. The plant is an extensive one, consisting of a main building, one hundred and seventy by seventy feet in dimensions and two stories in height, with a monitor roof fitted with traveling cranes; a blacksmith shop, boiler house, engine room and storage rooms are separate. A spur track runs into the yard, which is two acres in size. The present officers are: Frederick Fosdick, president; Charles Fosdick, treasurer. Capital, \$40,000.

THE WILLARD SCREEN COMPANY are manufacturers of cast metal-plates and rolled brass-plates for paper machines and paper mills. This business was established in 1889, in Leominster, and removed to Fitchburg in 1891. The product is sold in all parts of this country and Canada. The firm members are: Frederick Fosdick, treasurer and manager; Charles Fosdick and W. F. Clifford.

F. S. LOVELL MACHINE WORKS.—In 1887, after the death of Mr. C. M. Flint, the famous saw-mill inventor and builder, Mr. Lovell bought the business from the executors, and he has continued to improve the construction until now he has the most accurate set and best clogging device applied to any mill in the market. In addition to saw-mill machinery, Mr. Lovell manufactures quite a line of gingham machinery, such as spoolers, beaming appliances, loom temples, etc., and also does much fine work in the construction of electric light and plating dynamos. He is, besides, an extensive dealer in water wheels, circular saws, mill supplies, engines, boilers, etc. Mr. Lovell's shops on Boutelle street occupy a one-story frame building, forty feet by one hundred and twenty-five feet, are fitted up with steam-power, electric lights, iron and wood-working machinery, furnishing employment to about twenty hands.

THE ORSWELL MILLS were incorporated in 1886. About three hundred hands are employed in operating forty thousand spindles for the manufacture of high-grade yarns from Peeler and Egyptian cottons, carded or combed. W. M. Orswell, president and manager; W. F. Stiles, treasurer. Capital, \$300,000.

THE NOCKEGE MILLS were incorporated in 1893, with a capital of \$300,000, for the manufacture of print cloths. The mills contain twenty thousand spindles and five hundred and sixty looms, and employ about two hundred and fifty hands. W. M. Orswell, president and agent; W. F. Stiles, treasurer.

FITCHBURG GAS AND ELECTRIC LIGHT AND POWER CO.—This company was founded and incorporated in 1852, with Col. Ivers Phillips as president, Charles W. Wylder as treasurer, and H. F. Coggeshall as general manager. Rodney Wallace was chosen as president of the company in 1864, and has held the office ever since. H. F. Coggeshall was elected treasurer and clerk in 1866, and still occupies these offices. Mr. Coggeshall built the original gas works and has always been the company's manager. In 1889 the Fitchburg Gas Company purchased the Wachusett Electric Light Company, and in 1896 the present name was adopted.

HARTWELL & REED.—This business was established in 1830 by Isaac Hartwell, and is known as the City Marble Works. Mr. George Reed became a member of the firm in 1848, and, upon the death of Mr. Hartwell in 1883, Mr. Reed's son, Edward N. Reed, was admitted to an interest in the business.

COLEMAN & DRURY.—Messrs. Ezra Coleman and Fred. L. Drury became proprietors of this, the largest grocery establishment in Fitchburg, in 1890, and, under their efficient and progressive management, it has also become the largest business concern of its character in the vicinity of Fitchburg. The store, located at the corner of Main and Blossom streets, contains two stories with a floor area of about two thousand four hundred feet; but the store proper is only a small portion of the room occupied by Messrs. Coleman and Drury. They have in addition a large store-house on Canal street, with a spur track, a large store room under the Roll Stone National Bank, containing about three thousand square feet, and they also occupy the basement adjoining their store, which has over twelve hundred feet of floor space. Messrs. Coleman and Drury have more than doubled their business since beginning in 1890.

H. A. GOODRICH & CO., dealers in fine clothing, hats, furnishings, trunks and

robes. This is the oldest and largest clothing store in northern Massachusetts. The store, with basement, located at 149-151 Main street, has a floor space of over five thousand square feet. The firm members are Henry C. Goodrich and Willard L. Humes.

FITCHBURG MUTUAL FIRE INSURANCE CO.—Officers: Amasa Norcross, president; H. G. Morse, vice-president and treasurer; Edward P. Downe, secretary.

W. E. PUTNEY, insurance agent, representing about forty of the leading fire, life and accident insurance companies of the world, began business alone about 1888. Mr. Putney was formerly of the firm of Kirby & Putney. Office, 162 Main street.

W. L. JOHNSON established himself as a dealer in boilers, portable and stationary engines, mill supplies, and new and second-hand machinery, about sixteen years ago, and some three years later he added the lumber portion of his business. Mr. Johnson deals largely in spruce and hemlock lumber, shingles, spruce clap-boards, Michigan and Canada pine, North Carolina pine and cypress, and also handles doors, sash, blinds, and all kinds of inside and outside finish.

BROWNELL & MASON, PLUMBING AND HEATING, Tin, Sheet Iron and Copper Work; also, dealers in stoves, ranges, iron and tin-ware. Messrs. A. H. Brownell and S. S. Mason, the members of this firm, commenced business in 1880, and have earned a reputation as experts in their line. Their specialty is hot water, steam and furnace heating.

CHARLES L. FAIRBANKS.—Mr. Fairbanks, the principal coal dealer of Fitchburg, founded his business in 1864. He is agent for the Franklin, Lackawanna, Lehigh and Cumberland coals.

J. F. CHAFFIN, dealer in pianos and organs, stools, covers, sheet music, studies, brass-band instruments and musical goods of all kinds, established his store about twenty years ago. Mr. Chaffin handles, among others, the Hallet & Davis, Prescott, and Poole pianos.

F. A. MCCAULIFF & COMPANY.—This firm is composed of F. A. McCauliff and Z. Shea, the leading contractors and granite dealers of Fitchburg and vicinity. Bridge work, engine beds, and foundations a specialty. Quarries on Roll-stone Hill.

GREENE & SHEDDON, wholesale and retail ice dealers, with office and depot at Nos. 70, 72 and 74 Circle street. Messrs. C. H. Greene and E. P. Sheddon purchased this business in 1885, and have conducted it successfully ever since.

The medical profession is represented in Fitchburg by men of ability and scholarly attainments, among whom may be mentioned Drs. J. W. Stimson, A. P. Mason, F. H. Thompson, Eustace L. Fisk, E. P. Muller, Charles H. Rice, and C. W. Spring, members of the Massachusetts Medical Society.

NICHOLAS & FROST, dry-goods dealers, at 150-156 Main street.

LEOMINSTER.—Leominster has for years been noted for its horn-goods manufactures, and more recently it has become prominent for its shirt factories, which business has attained proportions of great magnitude.

W. D. EARLE & CO.—This firm, composed of W. D. and Thomas A. Earle, was established in 1870, and is one of the oldest and largest concerns manufacturing horn goods in Leominster. About one hundred and twenty hands are employed in making combs, hair-pins, buttons and various other articles of horn. The product is disposed of through jobbers in all the large cities of this country. The plant consists of two buildings, respectively 72 x 36 feet and four stories high, and 50 x 30 feet and two stories in dimensions.

E. B. KINGMAN & CO.—This, another of Leominster's prominent firms, was established in 1888 by Mr. E. B. Kingman for the manufacture of horn and celluloid hair-pins, side combs, back combs and novelties. Mr. Kingman is constantly getting out new novelties, which are distributed all over the country through traveling salesmen, leading jobbing houses and the New York office, located at No. 487 Broadway. About one hundred hands are employed in this extensive establishment.

THE HORN AND SUPPLY CO.—Quite important in the horn industry is the work performed by this company. This firm prepares the horn for the manufacturer. In their large plant over 14,000 horns are treated each week. They manufacture pressed horn and hoof, and are dealers in horns, hoofs, horn-tips and waste. Their product is shipped to manufacturers in this country and Canada. Incorporated in 1892, with F. A. Clapp as president and A. A. Tisdale as treasurer.

G. A. GANE SHIRT CO.—Mr. Gane, the proprietor of this business, was the first man to run a shirt machine at Leominster, where about seventeen years ago he started the Leominster Shirt Company. A year later he severed his connection with this concern and started for himself under the style of the Wachusett Shirt Company. The latter company has been one of the largest producers of white shirts in this country. Having sold out his interest in this firm, he erected a large four-story factory building, 40 x 200 feet in dimensions, and in 1895 began operations under the style of G. A. Gane Shirt Company. He also runs and operates as a branch an equally large factory in Island Pond, Vermont.

KENNEY & CO., manufacturers of and dealers in lumber, building frames, shingles, clapboards and laths, doors, windows, mouldings; native, Canada and Michigan lumber constantly on hand. This business was founded in 1863 by Stratton Brothers. In 1874 Messrs. Tenney & Kenney became proprietors of the business, and in 1893 Mr. Kenney became sole owner.

EDWARD ORR ROCKWELL, manufacturer of woolen yarns; also merino, silk rib and backing yarns.

THE LEOMINSTER ENTERPRISE.—The *Weekly Enterprise* was established in 1872, and the first number of the daily was issued the 5th of December, 1895. Mr. J. D. Miller, the present proprietor and editor, became the owner of the *Enterprise* in 1885.

GARDNER.—Gardner is known wherever chairs are used as the greatest chair manufacturing centre of the world.

HEYWOOD BROTHERS & CO.—For detailed history of the development of this, the largest chair-manufacturing firm in the world, see biography of Seth and Henry Heywood elsewhere in this work.

JOHN A. DUNN.—The immense chair manufacturing business now owned by Mr. John A. Dunn was founded in 1839 by Elijah Putnam. It changed hands a number of times before Mr. Dunn came into the business in 1864. After several different partnerships, he became the sole owner of the business in 1886. At that time the business done amounted to only \$2,000 per month. It is now more than \$1,000 per day. The plant is a very extensive one, consisting of over twenty buildings and sheds, with open tracks, and about one hundred and sixty hands are employed. Mr. Dunn has two large stores, respectively in Boston and Chicago, which are distributing centres for their districts. The growth of this business, dependent solely upon the business ability and energy of Mr. John A. Dunn, has been phenomenal. It is estimated that he will do a gross business of \$500,000 in 1897.

M. M. FAVOR, contractor and builder, and dealer in lumber, doors, windows,

blinds, mouldings, newels, rails, balusters and all kinds of builders' finish; also plaster brackets, centre-pieces, slate and a general line of builders' hardware.

T. T. GREENWOOD & SON, manufacturers of and dealers in furniture, carpets, curtains and crockery. The manufacturing department of this firm was established in 1861 by Mr. T. T. Greenwood. His son, Mr. L. A. Greenwood, came into the business in 1883, and the retail department was established. The factory, located at East Templeton, is a three-story building 80 by 100 feet in dimensions, and a finishing-room 40 by 60 feet. The product of this factory is sold both at home and to the African and English export trade. The store in West Gardner is a three-story building 40 by 80. Mr. J. J. Greenwood died in 1885, and his sons, L. A., T. W., Frederick and Herbert, succeeded to the business. Mr. L. A. Greenwood is the business manager.

G. R. GODFREY, manufacturer of fine hand-made harness for the wholesale and retail trade, and dealer in horse clothing, fur robes, mats, etc., commenced business in 1869. Mr. Godfrey employs about twenty-five assistants in making fine harness for the trade of the New England cities. He makes specialties of track, gentlemen's driving, surrey, coupé, single driving, double, coach and hack harnesses.

LOWE BROTHERS & Co. receivers of Swift's Chicago dressed beef, and dealers in pork, lard, hams, mutton, sausages, butter, cheese, eggs, fruit, produce, etc., are the sons of John Lowe, who established a meat business in Fitchburg nearly half a century ago, and became Swift's receiver in 1878. The firm became known under the present style in 1886. Mr. George R. Lowe is manager of the Gardner store, and Mr. Owen M. Lowe has charge of the Fitchburg store. Until recently their brother, Frank E. Lowe, conducted the Greenfield branch, but other business interests made it necessary for him to retire from the management of the meat business.

WESTMINSTER NATIONAL BANK, incorporated in 1875 with a capital of \$100,000. John A. Dunn, president; George R. Lowe, vice-president; F. W. Fenno, cashier.

WESTBORO.—One of the most thriving manufacturing plants in the country is that of the Hunt Manufacturing Company of Westboro, Mass., manufacturers of the world-renowned bicycle saddles.

September 1, 1891, the business was started under the name of J. A. Hunt & Co., Mr. G. M. Tewksbury being associated with Mr. Hunt, and the business being carried on in a room of 2,400 square feet floor surface, in what was known as the Gould Block on Milk street, near Main street. Ten thousand were manufactured the first year.

In February, 1893, a corporation was formed under Massachusetts laws, with a capital of \$30,000, Mr. A. L. Garford, of Elyria, Ohio, as president; Mr. J. A. Hunt, of Westboro, secretary, treasurer and general manager; and Mr. A. L. Garford, Mr. J. A. Hunt, and F. N. Smith, directors. In August, 1893, land was purchased on Phillips street, near Milk street, and a new factory 104x40 feet, having three floors, was built, and on December 25th the company moved into its new home and success followed throughout the year. On February 7, 1895, Mr. C. B. Tewksbury was elected secretary in the place of Mr. J. A. Hunt, resigned, Mr. Hunt still being treasurer and general manager.

In May, 1896, the factory was doubled in its capacity, making it 204 feet long by 40 feet wide, three stories, with separate boiler and engine house, also forge room and storage house; the plant being now equipped with a battery of boilers, a 125-horse power Providence steam engine, private electric light, telephone, automatic fire sprinkler and fire alarm, and Sturtevant hot-air heating systems.

The company employ from one hundred and seventy-five to two hundred employees, and make all styles of pneumatic or spring, soft or hard saddles, also tool cases, of which there are now being made every week more than were made during the entire first year of the business, being sold all over the United States, Canada, Mexico, South America, Europe and Australia.

THE CYCLE IMPROVEMENT CO.—In the fall of 1894 the Cycle Improvement Company was incorporated under the presidency of Reynold Janney, for the manufacture of bicycle pedals known as the "Janney Pedal."

The rapid growth of this business, and the influence Mr. Janney's ideas have had on many features of the manufacture of cycles, is worthy of particular mention. He came into the business with a thorough college training, both classical and scientific, and a strong bent toward the higher mathematics and mechanics. A post-graduate course in electricity, with considerable experience in the manufacture of electrical and astronomical apparatus while engaged in college and public-school work, enabled him to apply to the designing of bicycles, and particularly to the designing of ball bearings, a more accurate knowledge of the mathematics involved than had hitherto been put into practice. Through publications in the cycle journals he aroused the interest of manufacturers in the so-called three-point-contact ball-bearing, which has since been adopted as the best style of bearing by most of the manufacturers of high-grade wheels. The peculiarity of this style as distinguished from the old two-point-contact bearing, wherein the balls were confined to their track by two curved surfaces, that is, a concave cup, and a more or less concave cone, may be stated as follows: The balls are confined by three straight surfaces of contact, touching the balls at such points that a line passing through two of these points, and another line passing tangent to a ball at the third point, intersect the centre line of the axle at the same point. This style of bearing has formed one of the special characteristics of the Janney pedal, as it is the only pedal employing such a bearing, and this, together with the neatness in general design and the high quality of workmanship, has gained for the pedal such popularity and demand that the company has increased its facilities so far as to make it probably the largest exclusively pedal manufacturer in the United States. A large export trade, extending wherever the bicycle is used, attests the importance and success of specializing in the manufacture of complicated mechanisms.

GOULD & WALKER.—This firm was established about twelve years ago for the manufacture of heavy grade boots and shoes, and is one of the largest in the state making this line. The factory is a five-story structure 180x45 feet in dimensions, operated by steam and fully equipped with all the latest and most improved machinery known to the trade. The capacity of the factory is about two hundred and fifty dozen pairs daily, and the whole furnishes employment to about three hundred hands.

L. R. BATES began in 1863 the manufacture, on a small scale, of straw goods consisting of ladies' and misses' hats of all qualities and styles. Mr. Bates has had several partners at different times since the beginning, but he is now sole proprietor of the business, which has grown to large proportions. When the business was started in 1863, the straw braid was sent out to be sewed by hand. A sewing machine now does this work, and has nearly twenty times the capacity of a woman sewing by hand.

Mr. Bates employs about one hundred and thirty assistants, and his large output is disposed of through his New York and Boston jobbers.

F. V. BARTLETT & COMPANY, successors to C. Whiting & Co., are dealers in lumber of all kinds and manufacturers of packing boxes.

SOUTH FRAMINGHAM—GREGORY, SHAW & CO., of South Framingham, is one of the oldest established shoe-manufacturing concerns in the United States, and was founded in 1815 by Lee Claflin. The present firm is the seventh in control of the business since its incipency, and the members are: Wm. F. Gregory, Charles W. Shaw, Wm. Claflin, James A. Woolson. The line of manufacture is veal, grain, kip and split boots and shoes. Capacity, five thousand four hundred pairs per day. About five hundred and fifty hands are employed.

SMALLEY & CO., manufacturers of straw goods. The firm members are H. W. Smalley and L. D. Smalley; F. S. Hilton, designer.

T. L. BARBER & CO., manufacturers of straw goods. Salesrooms, 561 and 563 Broadway, New York.

AUBURN LAST COMPANY, manufacturers of lasts. Mr. E. D. Stone is sole proprietor of this business, and employs about fifteen assistants in his factory on Clark Street.

THE FAIRFIELD PAPER COMPANY.—The product of this mill is first-class ledger, bond and all linen typewriter paper. With new additions of machinery the company have facilities for producing four tons per day of the very best quality of paper made in this country. The purest of spring water, coming from the mountains, gives a superior color to the papers. The papers produced by this company were exhibited at Atlanta, Ga., in 1895, and were awarded a gold medal, the highest award given for linen ledger and record papers.

CHAPTER CXLIV.

INDUSTRIAL—Continued.

FALL RIVER.*



THE manufacturing of cotton in Fall River dates back to 1811, when Col. Joseph Durfee, in company with a few others, erected a small wooden factory in what is now known as Globe village. This pioneer establishment was continued until 1829, when it was changed into a print works, and finally destroyed by fire in 1838. From this humble beginning the cotton industry of Fall River has grown to gigantic proportions, becoming the largest cotton-manufacturing centre of America. There are forty-one incorporated companies, owning eighty-one mills, with an incorporated capital of \$25,233,000, containing 2,833,691 spindles, and 67,352 looms. A few of the leading mills and business houses follow as representatives of Fall River's industrial and commercial pursuits:

FALL RIVER IRON WORKS.—Company officers: Matthew C. D. Borden, president; Wm. J. Harley, clerk and treasurer; M. C. D. Borden, Bertram H. Borden, John R. Van Wormer, of New York, directors.

THE TROY COTTON AND WOOLEN MANUFACTURING CO. was organized in 1813 as the Troy Manufacturing Company, with a capital of \$50,000. In 1814 the company was reorganized, the present name adopted, and the capital increased \$16,000. The present capital stock is \$300,000. The mills have a total of 44,144 spindles and 1,004 looms, employing about 400 hands. Officers: John S. Brayton, president; Richard B. Borden, clerk and treasurer.

*See page 133, Vol. I.

THE POCASSETT MANUFACTURING Co. was incorporated in 1822, with a capital of \$100,000. They now have a capital stock of \$600,000, and operate four mills, with 67,220 spindles, and 1,951 looms, consuming 10,000 bales of cotton in their annual production of about 25,000,000 yards of twills and sateens. Employment is given to about 750 hands. The officers are: Thomas E. Brayton, president, and W. Frank Shove, clerk and treasurer.

THE METACOMET MANUFACTURING Co. was incorporated in 1880, with a capital of \$288,000, and located in a building erected by the Fall River Iron Works Company in 1847. The mill has 29,712 spindles, and 716 looms, and about 350 hands are employed in manufacturing goods to order. John S. Brayton, president; W. Frank Shove, clerk and treasurer.

ANNAWAN MANUFACTORY.—This mill was incorporated in 1825, with a capital stock of \$160,000. It contains 10,064 spindles, and 232 looms. John S. Brayton, president; clerk and treasurer, W. Frank Shove.

THE GRANITE MILLS were incorporated March 3, 1863, with William Mason as president, and Charles O. Shove, treasurer. The originator of this enterprise was Charles O. Shove, who for several years previously had contemplated the erection of a cotton mill. The original capital was \$225,000, but has been increased several times; it is now \$1,000,000. The mills consist of three buildings, containing 119,876 spindles, and 2,980 looms, and they consume 12,000 bales of cotton per year in the manufacture of 30,000,000 yards of goods. About 1,150 operatives are employed, to whom \$7,900 are paid every week. Mr. Charles O. Shove was the active manufacturer and financial manager of these mills until his death in July, 1875, when he was succeeded by his son, Charles M. Shove, who is the present clerk and treasurer. The present officers of the company are as follows: John S. Brayton, president; clerk and treasurer, Charles M. Shove; directors, John S. Brayton, John P. Slade, Frank S. Stevens, Edward E. Hathaway, Robert Henry, Charles M. Shove, Edward Shove.

THE ROBESON MILLS were incorporated in 1866, with a capital of \$260,000. The mill is equipped with 22,960 spindles, and 650 looms, and 230 hands are employed in the manufacture of print goods. The officers are: Charles B. Luther, president; Clarence M. Hathaway, clerk and treasurer.

DAVOL MILLS.—This concern was incorporated in 1867 with a capital of \$270,000. The company was re-organized in 1880, and the capital stock increased to \$400,000, at which figure it has remained. The plant consists of two mills, containing 46,008 spindles and 1,158 looms. Four hundred and twenty-five hands are employed. Frank L. Fish, president; George H. Hills, clerk and treasurer.

THE RICHARD BORDEN MANUFACTURING Co. was incorporated in 1871, the entire capital stock of \$800,000 being taken by twelve individuals. Thomas J. Borden was elected treasurer and corporation clerk, and Richard Borden was chosen president. The first mill, which is one of the most perfect structures for manufacturing purposes in the country, was erected and wound up under the personal supervision of Thomas J. Borden. It was started in 1873. The company now has two mills, containing 85,340 spindles and 2,148 looms. About seven hundred and fifty operatives are employed in its annual production of 28,000,000 yards of print cloths, wide goods and fancies. The present officers are: Thomas J. Borden, president; Richard B. Borden, clerk and treasurer; directors, Thomas J. Borden, Richard B. Borden, Jerome C. Borden, Frank S. Stevens, Edward P. Borden.

THE WAMPANOOG MILLS were incorporated in 1871 with a capital of \$400,000. No. 1 mill was erected in 1872, and in 1879 No. 2 mill was built, the capital being increased to \$500,000. There are now three mills equipped, with 112,880 spindles

and 2,108 looms. In the neighborhood of eight hundred and fifty hands are employed, and the annual production is about 30,000,000 yards of print cloths, odds and wides. Capital, \$750,000. Robert T. Davis, president; Effingham C. Haight, treasurer.

THE STEVENS MANUFACTURING Co. was incorporated in 1892 with a capital of \$250,000. The mill contains 5,000 frame spindles and 73 looms for the manufacture of crochot and Marseilles quilts. Frank S. Stevens, president; and George H. Hills, clerk and treasurer.

THE BARNABY MANUFACTURING Co. was incorporated in 1882. The present capital is \$400,000. This company employs about four hundred hands in operating 16,012 spindles and 500 looms for the manufacture of fine colored cotton goods. Simeon B. Chase, president; Stephen B. Ashley, clerk and treasurer.

LAUREL LAKE MILLS.—This corporation was organized in 1881 by John P. Slade, R. T. Davis, M. D. and Henry C. Lincoln. Mr. Slade was elected president of the corporation, and has held the position until the present time. The mills contain 56,368 spindles and 1,628 looms, employing about six hundred hands. The production consists of 19,000,000 yards of fine cotton goods and lawns. John P. Slade, president; Abbott E. Slade, clerk and treasurer. Capital stock, \$500,000.

THE SEACONNETT MILLS were incorporated in 1884 with a capital of \$600,000. The mills are equipped with 65,208 spindles and 1,800 looms, and about 760 hands are employed in the manufacture of print cloths and odd counts. Leontine Lincoln is president, Milton Reed, clerk, and Edward A. Chace, treasurer.

THE CONANICUT MILLS were originally built by Oliver Chase as a thread mill, and after several changes, the present company was incorporated in 1880. The mill contains 16,388 spindles and 370 looms. Fine wide cotton goods are manufactured. Edmund W. Converse, president; C. E. Lindsey, clerk and treasurer.

THE BOURNE MILL, named in honor of Jonathan Bourne, a capitalist of New Bedford, was erected in 1881, and is one of the most complete mills in the country. It contains 43,008 spindles and 1,316 looms, and is located just over the state line in Rhode Island. Capital, \$400,000. President, Frank S. Stevens; clerk and treasurer, George A. Chace.

THE KING PHILLIP MILLS were incorporated in 1871 with a capital of \$500,000, and in March, 1873, work was begun in No. 1 mill. The enterprise, meeting with all the success anticipated by the projectors, it was voted in June, 1881, to increase the capital to \$1,000,000 and erect a second mill. No. 2 mill was completed in 1882. There are now four mills containing a total of 124,480 spindles, and 2,808 looms. Employment is given to 1,100 operatives in the making of their annual production of 19,000,000 yards of fine goods and lawns. The officers are: Charles J. Holmes, president; George S. Davol, clerk; Simeon B. Chase, treasurer; Chas. J. Holmes, Henry H. Earl, Leontine Lincoln, Chas. E. Fisher, George A. Ballard, S. B. Chase, Oliver S. Hawes, Francis A. Foster, Boston, and Wm. F. Draper, Hopedale.

GLOBE YARN MILLS.—These mills were incorporated in 1881 with a capital of \$350,000. There are now three mills with a total of 100,000 spindles and 25,000 looms, and the present capital is \$1,200,000. Capacity, 125,000 pounds of fine yarns weekly. Over 1,000 hands are employed. The present officers are: Jerome R. Borden, president; Andrew J. Jennings, vice-president; Everett E. Tripp, clerk; Edward B. Jennings, treasurer.

THE SANFORD SPINNING Co. was incorporated in 1891 with a capital of \$500,000. The mill has 32,000 spindles, and 350 hands are employed in spinning 70,000 pounds of colored yarns weekly. Arnold B. Sanford, president; Arthur H. Mason, clerk and treasurer.

THE ALGONQUIN PRINTING CO. was incorporated in 1891 with a capital of \$160,000. This company operates three printing machines, and has a capacity of 17,000 pieces of calico per week. They print indigos and blacks, and also do job work. President and treasurer, Edward B. Jennings; clerk, Wm. H. Jennings.

UNION BELT CO.—The year 1871 is notable in the history of Fall River as witnessing the extraordinary development of the cotton industry. Some fifteen large mills were erected, calling for a large increase of its population, and the establishment of several industries to supply material incidental to nursing and keeping in motion the thousands of spindles and looms which were contained in the handsome and substantial buildings that had been erected for their use. Prominent among these industries stands the Union Belt Company, manufacturers of oak-tanned leather belting, and top-roll coverers. Capital, \$48,000. President, Richard B. Borden; clerk and treasurer, Robert N. Hathaway.

HARGRAVES MANUFACTURING CO.—In 1851 Cornelius Hargraves commenced the manufacturing of soaps and glue substitute on the site now occupied by the Hargraves Manufacturing Company. His business proved a success from the start, and as time rolled by, he was enabled to add some decided improvement, and in 1871 he organized the present company, consisting of Cornelius Hargraves, Reuben Hargraves and Thomas Hargraves, the two latter being his sons, who are now the sole proprietors of the business. They manufacture soaps of various brands, glue substitute, fertilizers, tripe, pigs' feet, and neats' foot oil; also dealers in tallow, bones, grease, rosin, chemicals, etc., and have a large capacity in these products.

KILBURN, LINCOLN & CO., incorporated in 1868, with a capital of \$80,000, are manufacturers of looms for cotton and silk weaving, and are also makers of shafting, hangers and pulleys. Andrew Luscomb, president; Leontine Lincoln, treasurer.

THE METALLIC COMB CO., manufacturing nicked, metal and aluminum combs, was established in 1889 by Messrs. J. H. Wells and E. H. Aldrich, dealers in hardware. On April 1, 1895, Mr. Wells withdrew from the hardware business and became sole proprietor of the Metallic Comb Company. The production is sold to manufacturers, agents and jobbers in New York and Boston.

E. H. ALDRICH HARDWARE CO., successor of Aldrich & Wells, established in 1885, incorporated in 1895. This company handles hardware of every description, cutlery and mill supplies.

J. B. WILMOT, GRANITE DEALER, and contractor. Specialties: Paving and curbing cut and laid.

COOK & GREW, plumbers and dealers in hot-water heating, furnaces, stoves, ranges and fire grates. This business has been established for more than thirty years. The firm is composed of A. O. Cook and T. M. Grew.

COVEL & OSBORN, successors to Sanford & Covell established in 1873, are dealers in mill supplies and hardware, and manufacturers of cotton banding, drum, scroll, spindle-braided and loop bands. They are also sole agents for the United States and Canada for Cook's steel loom forks and perforated steel surfacing. The present firm, composed of T. D. Covell and J. E. Osborn, was organized in 1884.

FALL RIVER STEAM AND GAS PIPE CO., are contractors for steam heating, plumbing and gas-fitting and dealers in wrought-iron pipe, steam, gas and plumbing materials, and tools of all descriptions. Also a full line of mill and engineers' supplies. Incorporated in 1891. L. W. Summer, president; Wm. H. Goodwin, treasurer; George W. Fisk, manager.

WORDELL & MCGUIRE, dealers in fine ready-made clothing and gentlemen's furnishings. M. M. Wordell and T. C. McGuire.

CHAS. H. WILLISTON, Gravel, roofing and concrete walks.

BEATTIE & WILCOX, contractors and builders. David Beattie and Arthur Wilcox.

ISRAEL PICARD, granite dealer, and building contractor, and proprietor of the Fall River Pink Granite Quarry.

JAMES B. TAYLOR, contractor and builder.

PHILIP H. BORDEN & Co., wholesale and retail lumber dealers.

JOSEPH M. DARLING, architect and contractor and builder.

SHEPARD & BUFFINGTON, insurance agents and brokers. J. M. Shepard, Jr., J. N. Buffington.

CHARLES C. COOK, real estate and insurance agent and investment broker.

JOHN P. SLADE & SON.—Insurance and real estate agents. Mr. John P. Slade established this business in 1858, and his son Mr. Leonard N. Slade is the other member of the present firm.

N. U. LYON, sole proprietor and manufacturer of Davis' Inflammatory Extirpator, and Sanford's Great Spanish Remedy, began the manufacture of medicines about forty-five years ago, and established himself in Fall River thirty-six years ago.

SMALL BROTHERS, manufacturers of all kinds of mill bandings, cotton ropes, braids and tapes.

WESTPORT MANUFACTURING CO., located at Westport, are manufacturers of cotton twine.

GOSS BROTHERS, banding manufacturers.

J. J. HEYWOOD, manufacturer of banding braids.

WILLIAM H. JENNINGS is one of the proprietors of the Webster Loom Harness Company.

NEW BEDFORD.—THE WAMSUTTA MILLS.*—It was twenty-one years after starting of the Wamsutta Mills before any attempt was made to establish the second manufacturing company, which was finally done in 1871 in the Potomska Mills, which operate 108,000 spindles, and 2,734 looms. These mills were later followed by the Acushnet and others.

THE ACUSHNET MILLS.—This corporation was organized in November, 1882, and a four-story building was erected early in the following year. A second mill was erected in 1887, and the total number of spindles in both mills at present is 105,000, with 3,400 looms, giving employment to 1,000 operatives. About 9,000 bales of cotton are consumed in these mills annually, and a variety of fine goods are manufactured. Horatio Hathaway, president; Joseph F. Knowles, treasurer and clerk. Capital stock, \$500,000.

THE PAIRPOINT MANUFACTURING CO.—The organization of this company was perfected in 1880, with Edward D. Mandell, president; Alexander N. Seabury, treasurer; and T. J. Pairpoint, superintendent, and a capital stock of \$100,000. To meet the rapidly increasing demand for their production, the capital was raised to \$400,000, and new mills added to their original building. On June 1, 1894, they absorbed the Mt. Washington Glass Company, the second oldest establishment of its kind in the country, and increased the capital stock to \$750,000. The capital stock was again increased September 1, 1896, and is now \$1,000,000. This is now unquestionably one of the most complete establishments in the world devoted to the production of silver ware, silver-plated ware, the richest cut-glass ware, decorated china ware, decorated lamps, etc. The combined floor area of the different buildings of the plant is seven and a half acres, and capacity of employees about 1,000. Their trade

* See page 142, Vol. I.

is not confined to any section, but extends all over the world; in fact wherever there is a demand for fine goods, these do not lack appreciation, and have made New Bedford famous as a source of supply for high-grade goods in this line.

GREEN & WOOD, LUMBER DEALERS.—This firm has been established for more than half a century, having been founded in 1846. This is the largest lumber enterprise in southeastern Massachusetts, and a trade has been established, wholesale and retail, to all the surrounding territory. The plant is located on the water, with a frontage of five hundred and sixty feet, a large wharf with facilities for handling whole cargoes of lumber, ample yards and sheds for storing the same, the whole covering an area of ninety-two acres. A brother and two sons of the original Mr. Wood, comprise the present firm.

HATHAWAY MANUFACTURING COMPANY.—This company was organized in December, 1888, and in the following year a factory building was constructed near the Acushnet mills. The capital stock, originally \$400,000, was increased in 1893 to \$800,000. The mills now have 100,000 spindles and 2,700 looms. About 1,000 hands are employed in the manufacture of a fine quality of cotton cloth. Horatio Hathaway, president; Joseph F. Knowles, treasurer and clerk.

THE COLUMBIA SPINNING COMPANY was incorporated in 1892, with a capital of \$750,000, for the manufacture of a high grade of hosiery yarns. The mills contain 50,000 spindles, and 550 operatives are employed. Frank R. Hadley, president and treasurer; Lewis E. Bentley, superintendent.

THE BENNETT MANUFACTURING COMPANY operates 85,000 spindles, and employs about 750 hands in the spinning of high-grade cotton yarns. This company was incorporated in 1889, with a capital stock of \$700,000. Frank R. Hadley is president and treasurer, and Lewis Bentley, superintendent.

THE WHITMAN MILLS were incorporated in 1894. They employ 850 hands in operating 60,000 spindles and 1,710 looms. The production consists of staples, fine fancies, and novelties in cotton goods. The officers are: Frank R. Hadley, president; Charles C. Diman, treasurer.

WILLIAM F. NYE, manufacturer and dealer in oils exclusively for machinery, established his business in 1866, and from a modest beginning it has grown to large proportions, and he has established a world-wide reputation for his specialties—sewing-machine oils, bicycle oils, neats'-foot oil, bicycle-chain lubricants, lard, castor and spindle oils, and most skillfully refined watch, clock and typewriter oils.

GEORGE DELANO'S SONS are large manufacturers of sperm, whale, sea-elephant and fish oils; patent and plain sperm and paraffine wax candles; spermaceti, whale and fish oil pressings, and sperm and whale oil soap. Mr. S. C. L. Delano has charge of the New York office at 176 Front street, and Mr. James Delano has the management of the factory at New Bedford.

BABBITT, WOOD & Co.—Messrs. J. M. Babbitt and P. F. Wood began business about fifteen years ago and have made a reputation as experts in their line. They are makers of boilers, steam fitters, and hot water engineers, and make high pressure steam fitting a specialty. The firm are also agents for the Spence Hot Water Heater, and the Faultless Furnham Hot Water Boilers. Engineers' supplies, second-hand machinery and boilers for sale.

THE FAIRHAVEN IRON FOUNDRY Co. are manufacturers of all kinds of light and heavy iron castings, building work, and stable furnishings. This company was incorporated in 1886. Officers: L. S. Judd, president; W. H. Judd, treasurer; David Frawley, superintendent. Among the specialties of this concern are the "Fairhaven" horseshoe or calking vise, steam heating apparatus, cast iron sectional

boilers, machine castings, rolling mill castings, cast iron flange pipe and fittings, grate bars and boiler castings, hand boat ballast, iron and lead keels, and mushroom anchors. The plant and office are located at Granite wharf, Fairhaven, Mass.

JAMES L. SHERMAN, dealer in lumber of all kinds. Yard, Wilcox and Richmond wharf. Office, 194 North Water street.

GEO. N. ALDEN, fire insurance agent, represents leading American and foreign companies. Office, 205 Merchants' Bank Building.

THE F. U. WENTWORTH CO., dealers in fine clothing, furnishings, trunks, hats, etc., was incorporated September, 1894. F. U. Wentworth, president and manager; H. U. Wentworth, clerk and treasurer.

SANDERS & BARROWS CLOTHING CO., headquarters for clothing, furnishings and hats, was incorporated March, 1894, under the laws of Massachusetts with a capital stock of \$50,000. F. C. Barrows, president; William Sanders, treasurer and manager.

THE FIRST NATIONAL BANK (formerly Marine Bank) was organized in 1864. Capital, \$1,000,000. E. S. Taber, president; W. P. Winsor, cashier.

BROWNELL, ASHLEY & CO., manufacturers of carriages. This is one of the largest and oldest established businesses of the kind in New Bedford.

UNION STREET RAILWAY CO.—Charles F. Shaw, treasurer; E. E. Potter, general superintendent.

SOUTHERN MASSACHUSETTS TELEPHONE CO.—Charles W. Clifford, president; Samuel Ivers, treasurer.

TAUNTON.—The industries of Taunton are extensive and diversified, and embrace the manufacture of machinery of various kinds, silver and britannia ware, fire-brick, tiles, cement, etc., cotton fabrics and yarns, stoves, ranges and furnaces, electrical supplies and apparatus, lumber, windows, doors, inside finish, and minor articles in great variety.

WHITTENTON MANUFACTURING CO.—Wm. C. Lovering, president; Charles Lovering, treasurer; Henry M. Lovering, agent. Manufacturers of ginghams, dress goods, fancy shirtings, cottonades and stripes. This is the oldest and largest manufacturing concern in Taunton. The plant comprises about twenty-five two, three and four-story brick and stone buildings, with a floorage of about twelve acres. The equipment of the mills consists in part of forty thousand two hundred spindles and one thousand four hundred and fifty-five looms, giving employment to about twelve hundred hands, and producing a daily output of nearly sixty thousand yards. The capital stock of the company is \$600,000.

MASON MACHINE WORKS, builders of cotton machinery. This establishment ranks second in point of size among the manufactories of Taunton. Established in 1842 by William Mason, the business has grown and prospered until it has reached its present large proportions. The firm has won a world-wide reputation for the superiority of their production.

In the past, in connection with their present line, they have been noted as manufacturers of locomotives and later of printing-presses, but these enterprises have now been abandoned in the interest of cotton machinery, Mason Machine Works making specialties of cards, drawing frames, railway heads, spinning frames, mules and looms. The concern was incorporated in 1873 under the laws of Massachusetts, with a capital stock of \$600,000. The present officers are: Frederick Mason, president; William H. Bent, treasurer. About twenty-five buildings, with a floor area of nearly nine acres, are included in the plant, accommodating one thousand hands. The factory yard, including ground occupied by buildings, is ten acres in extent.

ELIZABETH POOLE MILLS.—Incorporated in 1877 with \$100,000 capital stock. Officers: William C. Lovering, president; Albert E. Swasey, treasurer; Wm. C. Lovering, Chas. L. Lovering, Henry M. Lovering, Albert E. Swasey, Henry H. Culver, directors. The product of these mills consists of cotton blankets and napped goods. About two hundred hands are employed.

COHANNET MILLS.—Incorporated in 1874 with a capital stock of \$600,000. Edward B. Maltby, treasurer; Edward Lovering, agent. Spinners of American, Egyptian and Peruvian cotton, hosiery, yarns in every variety, caps, skeins, cones, twisted and ply, both white and colored, carded and combed. Mule spinning only. This company have three mills in Taunton (two on Adams street and one on Lugell street, Wier village). Equipped in part with seventy-three thousand spindles, and giving employment to five hundred or six hundred hands.

WHITE, WARNER & CO. are manufacturers of stoves and ranges. Messrs. C. P. White and R. E. Warner established this business in 1882, and their "Household Stoves and Ranges" are known all over the country. They employ about eighty hands in their foundry.

M. M. RHODES & SONS CO., manufacturers of papier maché shoe, tufting and gaiter buttons, established in 1870 and incorporated in 1888. M. M. Rhodes, president; George H. Rhodes, treasurer.

REED & BARTON.—This, the oldest britannia ware manufacturing business in the United States, was founded in 1824 by Isaac Babbitt, and incorporated in 1888, with Henry G. Reed, president; George Brabrook, treasurer; F. L. Fish, clerk. Capital stock, \$600,000. These works are unquestionably among the largest in this country, and turn out great quantities of fine sterling silver and electro-plate goods, whose design and quality are unsurpassed by any rival in America or Europe. Their goods are handled by all leading dealers in the world.

NEW ENGLAND STOVE CO., manufacturers of stoves, ranges and hollow ware. Among the leading specialties of this firm may be named the "Rockford" parlor-stove and the "Montello" range. Mr. L. B. West, treasurer.

WEST SILVER CO., successors to F. B. Rogers Silver Company (L. B. West, treasurer), manufacturers of the best of silver-plated table ware. The output of this company is large, and constantly growing. Their goods are sold in the United States, Canada, Mexico, the West Indies and South and Central America.

OSCAR G. THOMAS occupies the oldest of Taunton's existing iron foundries, it having been established away back in the last century by Crocker & Richmond. The property passed into the hands of Mr. Thomas in 1873, he inheriting it from his grandfather, Samson Perkins. Mr. Thomas's products are varied, but his leading specialties are a line of stoves, of which the principal are the "Premium," "Grand" and Herald Grand."

WEIR STOVE COMPANY.—This business was established in 1879 by Messrs. C. F. Baker, W. E. Walker and George E. Wilbur; and incorporated in 1893 with W. E. Walker, president, and C. F. Baker, treasurer. They are makers of the famous "Glenwood" stoves, ranges and heaters, and are the largest stove manufacturers in New England. About two hundred hands are employed in their foundry.

TAUNTON COPPER MANUFACTURING CO.—This company, incorporated in 1831, long stood at the head of the American copper manufacturing industry. The leading specialties include the refining of impure copper (bought direct from the mines), the rolling and finishing of sheet-copper for smiths' use in all sizes and thicknesses and for all purposes, the mixing and rolling of yellow metal into sheathing for the bottoms of marine craft, and the making of cut-copper nails of every description. The present officers are: President, George M. Woodward; treasurer, H. F. Bassett.

CANOE RIVER MILLS were organized in 1882. John C. Sharp, Jr., treasurer ; Arthur R. Sharp, resident agent ; J. E. Mitchell & Co., Philadelphia and Boston, selling agents. The product is cotton yarn.

NEMASKET MILLS, EAST TAUNTON.—Incorporated 1891 ; capital, \$400,000. Product: hosiery, yarns, etc. A. F. Lawrence, treasurer ; Chas. L. Macomber, resident agent.

PETER H. CORR, dealer in cotton, cotton waste and paper stock. Offices at 34, 36 and 38 Court street.

COLBY'S CLOTHING HOUSE was founded in 1846. Ready-made and custom clothing, furnishing goods, hats, caps, trunks, bags, etc., 21 and 23 Main street.

F. R. WASHBURN, dealer in hardware and sporting goods, farming tools, paints, oils and varnishes, at No. 15 Union Block.

STAPLES' COAL CO.—J. Stickney, president ; J. G. Hannah, treasurer. Shippers of anthracite and bituminous coal. Main office, 50 City Square, Taunton, Mass. H. M. Staples, sales agent, Taunton ; Clark Chase, sales agent, Fall River. 25 Bedford street. New York office, 1 Broadway.

BRISTOL COUNTY NATIONAL BANK.—S. L. Cushman, president ; H. H. Townsend, cashier. Capital, \$500,000 ; surplus, \$200,000.

TAUNTON STREET RAILWAY.—S. M. Thomas, treasurer ; G. F. Seibel, superintendent.

ATTLEBOROUGH.—The manufacture of jewelry in the Attleboroughs has become one of the great industries of New England. The history of the development of the jewelry interests of Attleborough chronicles the growth and progress of the city from its very beginning as a manufacturing centre.

This industry was started by a Frenchman in 1780, who began the manufacture of jewelry and brass butts in North Attleborough, his factory being the brick forge which stood on the site of the old shop on the premises of the late Jesse F. Richards.

HORTON, ANGELL AND CO.—This firm was organized in 1870 by Edwin J. Horton, Benjamin J. Angell and Gideon M. Horton. The firm continued without change in its membership for ten years, having increased their business to such an extent that, from the occupancy of a small room in Bailey's shop, now Robinson's, two floors of the shop of A. Bushee and Company were found necessary, and about 125 hands were employed.

On June 12, 1880, Edwin J. Horton was drowned in the collision between the sound steamers "Narragansett" and "Stonington." Edwin's brother, Everett S. Horton, took his interest and continued until June, 1886, when the present firm, continuing the original name, was organized, the members being E. S. Horton, M. E. Rowe, H. A. Clark and T. S. Carpenter. The chief articles of their manufacture are the "Original Separable Sleeve-Button, Collar-Button and Stud." They commenced the manufacture of this specialty in 1877 and it gave them quite a reputation and hold on the market, which has never been lost. Their product has also been exported in large quantities. The firm is now constructing a large and finely equipped factory, on Bank street, which they will occupy as soon as completed. It is 250 feet long, 36 feet wide and has three wings 36 feet square. It is two stories high over the offices, which occupy the front part of the building, and the basement is full size of the building. Electric power will be used, supplied by the general company of the town. The factory will be equipped with three motors, and a forty horse-power boiler to be used for heating purposes only. The building will also be supplied with automatic sprinklers, and every modern device for protection against fire.

W. D. WILMARTH AND Co., manufacturers of casting hardware. This firm was founded in 1864 by W. D. Wimalrth.

THE D. F. BRIGGS Co.—This concern is the successor of D. F. Briggs, who was bought out in 1889. The present firm is composed of Messrs. C. H. Tappan, W. C. Tappan and James Hume. They are among the largest, if not the largest manufacturers of ladies' and gentlemen's watch-chains in the world. They have acquired a national reputation for the quality and cheapness of their product, which is sold by all the leading jewelers throughout the United States, Canada and Mexico. The special feature of their chain is the leather swivel which they claim renders the watch non-magnetic, and the patent on which they own and control. A red tag is their trade-mark.

R. F. SIMONS & Co. are manufacturers of solid gold and rolled gold-plated chains, chain bracelets, solid gold and gold-filled lockets and seals, but their specialty and leader is, as formerly, "The R. F. S. & Co. Chain." This business was founded by Mr. R. F. Simons at Attleborough Falls in 1873. In January, 1874, he took E. L. Hixon in the business as partner, thus creating the present firm name. In March, 1875, J. L. Sweet entered the firm as an equal partner, and the following year the factory was removed to the Freeman building in Attleborough. Messrs. Hixon and Sweet are now proprietors of the building. Their New York office is located at 41-43 Maiden Lane, and the firm is represented in a number of foreign cities.

Among other manufacturing industries and business men of Attleborough, the concern of R. WOLFENDEN & SONS is worthy of mention. This firm is now composed of John W. Wolfenden and Oscar Wolfenden, who are dyers and bleachers of woolen and worsted yarns; also brades, tapes, hosiery, plush, etc. The business was established in 1868 by Mr. R. Wolfenden.

A. F. WALCH, clothing, hats and fine furnishing; also wholesale dealers in fine jewelry and silver novelties.

WILLIAM H. GOFF, builder and contractor. Mr. Goff has erected most of the larger buildings of Attleborough.

PIERCE & CARPENTER.—Alfred Pierce and A. R. Carpenter, dealers in lumber and coal. Pine, cedar, spruce and hemlock lumber and shingles of all grades; also patent cutters and conductors, mouldings and brackets of every description, sheathing paper, doors and window sash. This firm was founded in 1872.

ATTLEBOROUGH FALLS.—J. F. STURDY & Co.—Mr. J. F. Sturdy, the founder of this firm, is one of the oldest jewelry manufacturers of the Attleboroughs. Having been engaged in the business at Providence, he came to Attleborough in 1849 as a member of the firm of Draper, Sturdy & Co. In 1850 Mr. Sturdy retired from this firm, and in 1861 became associated with Messrs. J. A. Perry and F. Doll, under the present firm name. In about a year Mr. Sturdy became the sole proprietor and continued alone until 1875, when his son, Frederick E., became associated with him, and in 1879 his two other sons, Herbert K. and Frank M. Sturdy, were admitted to the firm. They manufacture a fine quality of rolled plated chains. Mr. J. F. Sturdy was the originator of the *rolled gold-plated stock and jewelry*.

D. EVANS & Co. are manufacturers of army, navy, livery, police, railroad, club and fancy gilt and silver-plated buttons.

T. I. SMITH & Co.—Mr. Theron I. Smith, the founder of the present firm, had been a partner in various firms for a period of about twenty years before commencing business under the present name about twenty years ago, with D. D. Coddling as partner. The firm members are now Theron I. Smith and L. W. Wise. They make specialties of link buttons, sleeve buttons, studs, ladies' shirt waist sets, collar buttons, scarf pins, etc., and give employment to about one hundred hands.

OSCAR M. DRAPER, manufacturer of rolled plate, fire gilt and nickel chains, started in business in 1862 under the name of O. M. Draper & Company, E. I. Richards being associated with him. In 1868 Mr. Draper became sole proprietor of the business. He employs about eighty hands.

F. M. WHITING CO., manufacturers of fine silverware of every description, have earned a high reputation throughout the country for the quality of their production. This business was established in 1878 by Mr. F. M. Whiting. Mr. Whiting died in May, 1892, and in 1895 the business was incorporated under the above name with his wife, F. L. Whiting, as president, and his sisters, J. S. Whiting and F. R. Whiting, respectively vice-president and treasurer.

YOUNG & STERN.—This firm was founded in 1871 by Messrs. Young & Bennett, and continued under this style of firm name until 1888, when it became as at present. The firm make a specialty of rolled plated chains. Another specialty is the chain purse, both of silver and silver plate.

JOHN P. BONNETT, though not a manufacturer of jewelry, is in a closely allied business. In 1879 he started business as an electroplater and colorer of jewelry, and has made a reputation for fine work, and is an expert in his line. He occupies a portion of the E. I. Richards Building and employs about twenty assistants.

W. H. RILEY & SON, dealers in coal, wood, hay, straw, lime, brick, cement, hair, fertilizers and drain pipe. W. H. Riley, Sr., and his son, Elmer J. Riley, bought out the business of J. G. Barden in 1879. Upon the death of Mr. Riley, Sr., in 1889, another son, Charles E. Riley, became a partner with his brother, Elmer J. Riley, and they have continued the business since.

PLAINVILLE.—THE PLAINVILLE STOCK CO., manufacturers of a general line of gold plated, gold front and silver jewelry, was established in 1872 as G. Demarest & Company, and reorganized in 1874, when the present name was adopted. The firm is composed of D. H. Corey, superintendent; W. S. Metcalf, treasurer; A. W. Burton and E. P. Bennett. Their output is sold almost exclusively to jobbers. About one hundred hands are employed.

BROCKTON.—Brockton is one of the most prosperous and rapidly growing cities of New England. It is essentially a manufacturing city, many forms of industrial pursuits being represented within its limits; but it is chiefly noted as one of the great boot and shoe centres of the country.

R. B. GROVER & CO. are the manufacturers of the "Emerson Shoe," a fine grade of gentlemen's footwear. They sell their goods at retail in their own stores, of which they have twenty-five located in various large cities of the United States. The firm is composed of Robbins B. Grover, Charles O. Emerson and J. Frank Hill.

PRESTON B. KEITH SHOE CO., incorporated November 1, 1896. Capital, \$100,000. Officers: Preston B. Keith, president; Rufus P. Keith, vice-president; Chas. M. Park, treasurer. Directors: Preston B. Keith, Rufus P. Keith, Charles M. Park and Thomas H. Hickey. Mr. Preston B. Keith commenced business in 1871 in Campello, and three years later removed to Clifton avenue. In 1877 Mr. Keith erected the building now occupied by the corporation, where he opened in July, 1878. This concern is one of the largest manufacturers of Brockton, employing about four hundred hands, and doing a business of nearly a \$1,000,000 per year.

M. A. PACKARD & CO.—This firm was established in 1877, and seven years later Mr. R. B. Grover was admitted to the firm. Upon the withdrawal of Mr. Grover in 1889 the firm was reorganized with Moses A. Packard, Oliver M. Fisher and John S. Kent as partners. By the well-known "2.99" shoe Mr. Packard originated the plan of fixing a definite retail price by the manufacturer.

THE FRANK E. WHITE CO. are manufacturers of a medium line of men's and boys' shoes, and do a very large business, aggregating \$600,000 per year. Mr. White was formerly of the firm of D. S. Howard & Company and now occupies the factory purchased from Darius Howard, to which extensive additions have been made.

BOUVE, CRAWFORD & Co., manufacturers of the widely known "Crawford Shoe," were incorporated in 1890, under the laws of Massachusetts, with Harvey F. Crawford as president; George F. Bouve, treasurer; and Lander M. Bouve, clerk. This business was established by Harvey F. Crawford and Frank Hill, now a member of the firm of R. B. Grover & Company. The above-named firm was organized three years before their incorporation. The manufacturers of the "Crawford Shoe" sell their goods directly to the retail trade from their own stores. They have two stores in Boston, four in New York city, three in Brooklyn, two in Philadelphia, two in Washington, and one each in Baltimore, Providence, New Haven and Newark.

CHURCHILL & ALDEN.—This business was founded in 1878 under the firm-name of Whitman, Churchill & Alden in Campello. Mr. Whitman retired at the expiration of six years and the firm became as at present. In 1889, they purchased the large plant where they are now located. They employ about three hundred workmen.

DANIEL WALDO FIELD, in November, 1876, at the age of twenty, entered the employ of the leader of shoe manufacturers of Brockton, Daniel S. Howard, and became Mr. Howard's confidential clerk. After an experience of four years, he commenced business for himself in January, 1881, with a capital of \$1,500. At the beginning Mr. Field made but thirty-six pairs of shoes per day, but his business has continued to increase in volume till the amount of goods he manufactures is next to the highest of any in the city, having reached nearly forty-five thousand cases per year. Mr. Field takes great pride in the fact that his factory, in Montello, is located on or near the place of his birth.

GEORGE G. SNOW entered the employ of Daniel S. Howard when sixteen years of age, and remained fifteen years learning all the details of the business. In 1874, he began business for himself in four rooms of a building previously occupied as the marble works of George W. Bryant. From this small beginning Mr. Snow has grown to be one of the largest manufacturers of Brockton, his factory accommodating five hundred or more workmen.

WHITMAN & KEITH.—This firm was established in August, 1883. Both members were previously shoe manufacturers, Mr. William E. Whitman having been for five years the senior member of the firm of Whitman, Churchill & Alden; and Mr. Daniel W. Keith having been formerly engaged in manufacturing at the present location of the firm in Campello.

L. M. REYNOLDS was initiated into the shoe business as an apprentice with his father, Charles T. Reynolds. In 1869 he entered the employ of Peleg S. Leach, an extensive manufacturer of his native town, and remained with him until he became the manager of the factory of B. F. Campbell & Co., of Boston, four years later. Early in February, 1881, Mr. Reynolds purchased the business of Campbell & Co. The 1st of May, of the same year, he began business with his brother, Bion F. Reynolds, and this partnership continued until August 1, 1890, when he became sole proprietor. The factory erected in 1883, near Court street, Brockton, is large and well equipped. About two hundred hands are employed.

N. R. PACKARD & Co.—Mr. Packard, proprietor of the business, commenced the manufacture of boots and shoes in 1869, at the corner of Centre and Montello streets, and has continued a prosperous and growing business. Mr. Packard has a salesroom in Boston, and sells largely to the retail trade.

T. D. BARRY & Co. are located in a factory on Pleasant street, formerly occupied by W. L. Douglas, where they have a capacity of eighteen hundred pairs per day. The firm is composed of Thomas D. Barry and William A. Hogan. Mr. Barry came to Brockton from Randolph, where he had been superintendent for George H. Burt & Co.

ENOS H. REYNOLDS is one of the oldest boot and shoe manufacturers in Brockton. In 1857, at the age of twenty-three, he began to manufacture boots on the old homestead, where his present factory, erected in 1875, is located. On the admission, in 1865, of Messrs. Henry Parks and S. Gardner Jones, the firm-name became Reynolds, Parks & Co., and continued for a period of about four years, when Mr. Reynolds again became proprietor of the business. The capacity of the factory is two hundred and fifty pairs per day, and about seventy-five hands are employed.

THOMPSON BROTHERS.—G. H. and J. F. Thompson have an extensive factory at Campello for the manufacture of Goodyear welts for men's wear. They have a capacity of two hundred dozen pairs per day, and employ about four hundred hands.

MESSRS. CHARLES HOWARD & CHARLES H. FOSTER began business together in 1887, under the firm-name of Howard & Foster. They manufacture a fine grade of men's footwear, and sell their production exclusively to the retail trade throughout the country. Their factory has a daily capacity of twelve hundred pairs, and employment is given to about two hundred and fifty hands.

D. E. WILBAR & Co. succeeded the firm of Miles & Wilbar the 1st of July, 1894. They are manufacturers of a two-priced specialty in men's shoes, in calf and colors.

MCCARTY, SHEEHY & KENDRICK Co., incorporated in February, 1893, under the laws of Massachusetts, with A. E. Kendrick, as president; J. R. McCarthy, vice-president; and D. J. Sheehy, treasurer. They occupy a large factory on Crescent street for the manufacture of a line of low and medium-priced goods for the jobbing trade. The firm employ about two hundred and fifty assistants, and have a capacity of fifteen hundred pairs per day.

W. L. DOUGLAS SHOE Co., known all over the United States as manufacturers of the "Douglas Three Dollar Shoe," was incorporated in 1892, with a capital of \$200,000. The capacity of the large factory erected at Montello in 1892 is about three thousand six hundred pairs per day.

A. M. HERROD, manufacturer of men's, boys' and youths' buff and satin shoes, has been established a number of years. Mr. Herrod has a large factory in Montello, with a capacity of three thousand pairs per day, and where he employs from three hundred to four hundred hands.

BAXENDALE & Co. are manufacturers of ladies' and gentlemen's box-toes of all styles, in leather and leather-board, and combination leather. This firm was established in 1872.

C. S. PIERCE began the manufacture of box-toes in 1872, and has conducted a prosperous and growing business. Mr. Pierce employs about forty assistants.

G. W. LAVERS became sole proprietor in 1896 of one of Brockton's old-established concerns. Mr. Lavers is a manufacturer of cutting-dies of every description.

GEO. A. CARTER Co. are manufacturers of wire nails, tacks and shoe nails. The factories are located at 155 Crescent street and 41 Maple avenue, Brockton.

O. A. MILLER has been established a number of years as a manufacturer of shoe-treeing machines and shoe-tree feet.

E. M. LOW, manufacturer of paper boxes, founded his business in 1879.

W. W. CROSS & Co. are manufacturers of a full line of tacks. This business

was founded in 1869 by Mr. W. W. Cross, and from a small beginning, when but nine machines were used, the business has grown till now there are one hundred and four machines in operation and about thirty-five hands are employed. The firm is composed of W. W. Cross and his son W. B. Cross. The Messrs. Cross are the sole owners and manufacturers of the electric insulating saddle staple, the manufacture of which they are now making a specialty.

F. B. WASHBURN & Co. (Corporation) are manufacturing confectioners and bakers. Chief among their specialties is their penny cocoanut biscuit, of which they are the largest manufacturers in the United States. They pack them one hundred in a box and forty boxes to the case. This concern was established in 1859, and incorporated in 1888, with Robbins B. Grover, president; Kenneth McLeod, vice-president; George R. Washburn, treasurer. Capital stock is \$60,000.

E. R. LAIRD & Co. began business in 1891 for the manufacture of steel shoe shanks.

JOHN S. CONLEY, manufacturer of bread, pastry, crackers, cake, etc., wedding cake and frosting a specialty, has a well equipped establishment at 111 Pleasant street and Loucraft avenue.

A. B. HASTINGS, manufacturing confectioner, and plain and fancy baker has a large retail store and extensive plant in Campello.

THURBER & WADE (Successors to O. O. Patten & Co.) are manufacturers of fine dressings and blackings, and dealers in chemicals, glue, gums, waxes, and shoe supplies. This business was established in 1856, and has been long and favorably known.

BROCKTON LAST Co. is composed of Messrs. W. H. Cary and A. A. Delano, who in 1886 succeeded to the business of M. Linfield & Co. and Cary & Thompson, adopting the present firm name. They are manufacturers of mens' fine boot and shoe lasts, and make a specialty of the Arnold patent hinge last. Their factory has a capacity of two thousand pairs a day and eighty assistants are employed. Their agent, Mr. W. E. Bell, looks after the western trade.

MONARCH RUBBER CO., proofers of cloth for the trade and manufacturers of specialties in rubber and cement, are located at Campello. This concern was organized in 1892, and later incorporated with Wm. Rapp, president; Ziba C. Keith, treasurer, and J. T. Robinson, manager.

J. M. JENNEY, carriage repairing and general jobbing.

BOSTON STAY Co. was established in 1893 by Mr. I. P. Gayner.

The trade interests of Brockton are by no means unimportant, there being many large and well-established business concerns representing various commercial pursuits.

ISAM MITCHELL & Co. are dealers in eastern, western and northern lumber of every description, lime, hair, Rosendale cement, calcine plaster, Portland cement and hardware, sash, doors and blinds. The firm is composed of Isam Mitchell and K. S. Mitchell.

H. S. RICHMOND & Co., wholesale and retail dealers in lumber.

J. G. WILDE, dealer in coal.

L. RICHMOND & Co., wholesale and retail dealers in paints, drugs, chemicals, paper hangings and curtains.

WALTER D. PACKARD, dealer in household furniture and auctioneer.

ELMER C. PACKARD, dealer in hay and straw and grain and coal.

W. L. FRENCH & Co., dealers in leather remnants of all kinds.

A. G. TINKHAM, dealer in leather remnants of every description.

REYNOLDS, DRAKE & GABLE, shoe manufacturers, established in 1857. Pro-

duct consists of a medium grade of men's shoes. Capacity four hundred pairs per day. Jonas Reynolds, E. C. Drake and W. F. Gable.

HOME NATIONAL BANK.—Preston B. Keith, president; Warner B. Smith, cashier. Organized 1874. Capital \$200,000.

BROCKTON NATIONAL BANK.—D. L. Packard, president; C. R. Fillebrown, cashier. Capital stock \$100,000.

PLYMOUTH COUNTY SAFE DEPOSIT AND TRUST CO.—Capital \$100,000. Ziba C. Keith, president; Isaac N. Nutter, treasurer; Robert O. Harris, secretary.

ATWOOD & WEEKS' COLLATERAL BANKING ROOMS, Nos. 1 and 2 Post-office Block. H. W. Atwood and J. H. Weeks.

HENRY L. & WALTER C. BRYANT.—Real estate investments.

DENNIE'S CAMPBELLO AND BOSTON EXPRESS.—Fred. M. Dennie, proprietor.

JOSLYN EXPRESS CO.—J. P. Morse and S. D. Hosmar, proprietors.

WHITMAN.—L. C. BLISS & CO., manufacturers of the extensively advertised "Regal Shoe" for gentlemen's wear, were established in 1880 on Centre street, Brockton. After several removals, necessitated by the rapid increase of their business, they purchased the large factory building formerly occupied by Smith & Stoughton, into which they moved in the first part of 1897. The firm has a jobbing trade extending all over the country, and retail their goods from their own stores in Boston, Lowell, Providence, New York, Brooklyn, Baltimore, Washington, etc.

COMMONWEALTH SHOE AND LEATHER CO.—Chas. H. Jones, president; C. D. Reed, treasurer; H. E. Cummings, secretary. The capacity of this concern is six thousand pairs per day.

D. B. GURNEY, manufacturer of tacks.

ABINGTON.—CHARLES H. DALY, wholesale dealer in leather remnants, and manufacturer of vamps, heels, backstays and patching.

AVON.—L. G. LITTLEFIELD began business in 1888, manufacturing men's and boys' medium-grade buff, dongola and satin calf for the jobbing trade. Capacity, 1,500 pairs per day. About 200 hands are employed.

THOMAS TRIPP, dealer in real estate.

CHAPTER CXLV.

INDUSTRIAL—Continued.



SPRINGFIELD,* which leads in population all other cities west of Worcester county, dates its origin back to 1636, and it was the first settlement west of Boston, and its vicinity. The founder, William Pynchon, and his company of seven others, from Roxbury, did not spend their lives in the new settlement. He went back to England, and most of the others to towns in Connecticut. The first board of selectmen, or townsmen, were: Henry Smith, Thomas Cooper, Samuel Chapin, Richard Sykes and Henry Burt. All but Smith, who went back to England with his father-in law, William Pynchon, remained to the close of their lives, and were active in the town's affairs. The first mill was for sawing timber into boards, and next came the grain-mill, for converting wheat and Indian corn into flour and meal. After these came the blacksmith shop.

*By Henry M. Burt.

The first smithy was a Scotchman, John Stuart, who for many years followed the fortunes of King Charles I., under the Marquis of Montrose, in Scotland, where he participated in many battles. At the battle of Dunbar, Cromwell defeated the king's army, and took many thousand prisoners, among whom was Stuart, who was deported to America. On arriving here his services were sold to John Pynchon, the son of the founder, and in time he succeeded to the ownership of the town's blacksmith shop. From these rude beginnings have sprung the present prosperous Springfield, with its large investments in various manufactures. Its present importance is of comparatively recent date. Up to the beginning of the War of the Rebellion, it was little more than a country village.

The United States armory, established not many years after the close of the Revolution, was for a long time the chief industrial interest of the town. In fact, it continued as such almost down to the opening of the War of the Rebellion. The manufacture of revolvers, railway cars, together with a few minor products of very small shops, did not reach the importance of the present time till some years after the close of the Rebellion. Springfield can, in fact, be said to date its greater prosperity from the impetus it received during the late war, when its central position and its natural resources came more generally to public notice. Many skilled workmen were attracted to Springfield as the demand for arms increased, and found employment in the armory until the conflict ceased. Its central position in consequence of the war was brought to more general notice, and a multitude of industries have come into existence as the result of a far-reaching survey of the possibilities of the locality as a distributing centre. The products of the manufacturing establishments of Springfield find a market in every part of the United States, and to a considerable extent in far-off foreign countries. Its railway cars are found in every state in the Union. Its fire-arms are unrivalled, and the products of its various shops have found a ready demand in almost every quarter of the globe, until it has become known as a manufacturing centre of more than ordinary importance in the busy hive of industry, so characteristic of New England push and energy, in those lines which have solidity and excellence of finish to recommend them to the trade.

The diversity of the manufacturing interests are so great that the city does not feel that depression which sometimes comes to a single interest, so that what is "hard times" in the cotton or woolen interests are not felt, as a whole, as where manufacturing runs largely to a single or few kinds. The manufactures have sprung up so quietly that the majority of the residents hardly can tell from what cause the prosperity of its more than fifty thousand inhabitants have come. The side streets near the railway station, notably Lyman, Taylor and Worthington streets, have gradually filled up with manufacturing interests widely different, yet prosperous. In the north part of the city, Brightwood has come to be quite a large and important manufacturing centre. South of State street, in the vicinity of Stockbridge, have been established some large and notable concerns. Others have in recent years been located in the south part of the city, while what is known as "on the hill," on State street, or near it, clustering around the New England railroad, within very recent years, have grown up several large and important establishments, which are doing a thriving business. In this locality there has come into practical use the Industrial Institute, which teaches young men mechanical employments. Its instructors are trained men in their several branches, and although it is not yet self-supporting, it is gradually nearing that point. As compared with forty or fifty years ago, when boys learned trades by serving a regular apprenticeship, which they no longer do, instruction in mechanics must come from trade schools, and this pioneer in instruc-

tion must be regarded as of more than ordinary importance to thousands of young men who are beginning to enroll themselves as students.

THE WASON MANUFACTURING CO., located at Brightwood, which is a northern suburb of Springfield, build cars of every description for both steam and electric railroads. It is the second establishment engaged in car-building in New England, and the third in the entire country. It was founded by Thomas W. Wason and his brother, Charles Wason, in 1846, and it was in these shops that George M. Pullman had built his first sleeping-car. This was less than thirty-five years ago, when night trains were far from furnishing the luxurious accommodations of the present time. The two brothers, founders of the Wason shops, came from Hancock, N. H., to Chicopee, which joins Springfield on the north, to engage in carpentry work. On the opening of the Connecticut River Railroad, they moved to Springfield and began to build freight cars for that road, they doing the entire work of construction from beginning to finish. One of the brothers, Charles, withdrew very early and went to Cleveland, Ohio, to engage in similar work there. The year following L. O. Hanson, Josiah Bumstead and J. S. Mellen were admitted to partnership with Thomas W. Wason. Their entire capital was \$20,000, of which amount Mr. Wason furnished one-half. In 1854 George C. Fisk, who is now president of the company, bought Mr. Mellen's interest, paying him \$3,333.33. In 1863 the concern was incorporated as the Wason Manufacturing Company, with a small capital, which was afterwards increased to \$300,000. Mr. Wason died in 1870, and since then Mr. Fisk has been the president of the company and its active manager. The yearly product of these shops have exceeded, in the most prosperous years, \$1,500,000. It has supplied over four hundred railroads with cars, from the plain flat to the most elegant passenger car. The combined length, if the cars that they have made were put into a single line, would reach from Boston to Albany. Mr. Fisk's connection with the company dates back to September 8, 1852, when he entered the concern as a book-keeper at a salary of \$1 per day. His associates are Henry S. Hyde, president of the Agawam National Bank, who is the treasurer of the company; Henry Pearson, master-mechanic and superintendent; L. C. Hyde, book-keeper; Charles A. Fisk, paymaster. Not long after the death of the founder in 1870, the shops were moved from Lyman street to Brightwood, a name that Dr. J. G. Holland gave to his new home on the elevation overlooking the river and the valley, which Mr. Fisk bought and now occupies.

SMITH & WESSON, manufacturers of revolvers, employ from three hundred and fifty to five hundred and fifty highly skilled workmen in the manufacture of high-grade revolvers, which find ready sale in every part of the habitable globe. In calibre they run from thirty-two to the largest size used in the army and navy, consisting of automatic shell-extracting revolvers, single and double action, safety, hammerless and target models. They use the best steel, and their arms have reached a high standard of perfection in both finish and durability. They have supplied over thirty thousand revolvers to various governments for the use of officers, soldiers and policemen; while there has been a great demand, too, from private individuals from every country throughout the world. This concern was founded in 1856 by Horace Smith and Daniel B. Wesson. The former, now deceased, withdrew many years since, after accumulating a fortune, leaving the junior member of the firm to continue the business. Many of the patents under which the firm have prospered were the inventions of Mr. Wesson. He is assisted in the manufacture by his two sons—Walter H., who is the treasurer, and Joseph H., who is the superintendent.

THE MILTON BRADLEY CO., which has been largely engaged in manufacturing

games for children and goods used in kindergarten schools, is the leading establishment of its kind in this country. Mr. Bradley is a native of Maine, from which he migrated to Lowell in early youth, and from there in 1856 to Springfield. He entered the employ on coming to Springfield of Thomas W. Wason, the car-builder, as a mechanical draftsman; and not long afterward he began work on his own account, adding to it the business of patent solicitor. Subsequently he was joined by William H. Child, and they took up the business of lithographing. Mr. Child did not find sufficient inducement to remain in the firm, and withdrew from it quite early. Among the first work that Mr. Bradley did was to re-produce in lithography the portrait of Abraham Lincoln immediately after his nomination as the Republican candidate for President. Following this, he took up the manufacture of games for children, and it is now one of the most successful concerns in the country. In 1884 it was incorporated with a capital of \$56,000. In 1886 the system of profit-sharing with its employees was introduced with good results. In addition to his salary, each employee is given at the close of each year two per cent. of the amount paid him as a salary. Sales-houses have been opened in New York, Atlanta, Chicago and Kansas City. Employment is given to one hundred and thirty hands.

THE BAY STATE CORSET CO. had its origin at West Brookfield in 1884 under the firm-name of C. L. Olmstead & Company. The junior member of the firm was Myron W. Sherman. He withdrew from it in 1885 and was succeeded by Albert D. Nason. In 1886 their factory was burned, after which they removed to Springfield. It was incorporated in 1890 as the Bay State Corset Company, with a capital of \$100,000. Their manufactures consist of corsets and waists, which have a sale in every part of the country. Their goods are made exclusively for the jobbing trade, and their selling department is under the management of William M. Titus, who has been with the company since it was incorporated. The directors are: Albert D. Nason, president (treasurer general manager); Andrew B. Wallace, J. G. McIntosh, William Anderson, George Nye, Jr., William M. Titus and Charles E. Whiting. Employment is given to from three hundred and seventy-five to four hundred and fifty hands.

NEWELL BROTHERS MANUFACTURING CO., covered, ivory and pearl buttons, and buckles for clothing. This concern was incorporated in 1878, with a capital of \$100,000. Nelson C. Newell is president and treasurer, Albert W. Newell, vice-president, and William C. Newell, secretary. The business was founded in 1848 at Longmeadow, when its now president was only twenty-four years old. The establishment was moved to Springfield in 1863. During the administration of Gen. Harrison it employed five hundred hands, while during the administration of Grover Cleveland, after the duty was cut down fifteen per cent., only two hundred were employed, reducing the yearly amount paid to employees \$100,000.

THE CHENEY BIGELOW WIRE WORKS was founded by Cheney Bigelow in 1842 for the manufacture of wire webbing for Foudrinier machines and dandy rolls, used in paper mills. On the death of Cheney Bigelow in 1873, the business was conducted by W. B. Stevens until a few years since, when he was succeeded by J. H. Bigelow, of Worcester, brother of the founder. The latter died in October, 1896. The company was incorporated in 1887 with a capital of \$90,000.

THE MORGAN ENVELOPE CO. was incorporated with a capital of \$100,000, Elisha Morgan being the founder prior to its becoming a stock company. It manufactures papeteries, toilet papers and envelopes, giving employment to about three hundred hands. It has for many years supplied the United States government with envelopes, and it manufactured the first postal cards used by the United States post

office. The officers of the company are: Elisha Morgan, president; R. W. Day, treasurer, and W. O. Day, clerk. Mr. Morgan is a descendant of Miles Morgan, one of the first settlers of Springfield, whose monument adorns Court Square.

P. P. KELLOGG & CO. employ from one hundred to one hundred and fifty hands in the manufacture of envelopes. This company was founded in 1883 by the late P. P. Kellogg, and has been from the start one of the successful firms in Springfield's many and varied industries.

BARNEY & BERRY, manufacturers of skates of a high grade of finish, employ one hundred and fifty hands. The business was begun by Mr. Barney in 1854. For a short time Mr. Berry was a partner, but he withdrew from the firm not long after it was founded. His name as junior member of the firm has since been retained. Mr. Barney, who has been the head and front of the establishment, has produced an article that has not only been well known in this country, but has been sought for in foreign countries, where the very highest grades of workmanship are held in repute. Besides his business Mr. Barney has added to the reputation of Springfield by large and generous contributions to the domain of Forest Park, the people's favorite place for recreation.

THE R. H. SMITH MANUFACTURING CO., rubber stamps, was founded in 1865 by R. H. Smith. His brother, H. M. Smith, was admitted to partnership in 1875, and the firm-name was R. H. Smith & Company. In 1883 the concern was incorporated as the R. H. Smith Company, with a capital of \$30,000. R. H. Smith is president; H. M. Smith, vice-president; and W. F. Tripp, treasurer. Employment is given to forty hands.

THE FISK MANUFACTURING CO., which makes soap for family and mill use, was founded as a private concern by L. I. Fisk. After his death it was incorporated in 1880 with a capital of \$50,000. President, George C. Fisk; secretary and treasurer, Noyes W. Fisk.

THE MARTIN CASH CARRIER CO. manufacture carriers for stores, offices and banks, for conveying either money or bundles as may be required. Several of the largest offices of the Western Union Telegraph Company are supplied with these machines for carrying messages from one operator to another. It is the invention of Joseph C. Martin, who is also the inventor of other systems for like purpose, which have been in use for many years in this country. The company was incorporated in 1889 with a capital of \$100,000. The officers are: George G. Crocker, president; Tilly Haynes, vice-president; Herbert L. Harding, treasurer; and Joseph C. Martin, general manager. The carriers made by this company are in use in many leading stores in the United States and in Canada.

THE R. F. HAWKINS IRON WORKS is the outgrowth of the business established by Daniel L. Harris and Amasa Stone, Jr., in 1840. Bridge-building and boiler-making have for many years been its chief business. In addition it makes wood-pipes and structural work for roofs and buildings. The head of the concern dates his connection with bridge-building back to 1853, when he became office-boy for Stone & Harris. Nine years later he was admitted to partnership with Mr. Harris, and about 1867 the general business of Harris & Hawkins changed from wood structures in bridges to iron, since which time the concern has been engaged entirely in iron work. About two hundred high-class workmen are employed.

THE E. STEBBINS MANUFACTURING COMPANY, whose shops are at Brightwood, was founded in 1848 by Erastus Stebbins, in Chicopee, who secured a patent for a water faucet. In 1861 the concern was moved to Springfield. After doing business in Springfield several years Mr. Stebbins sold his interest, and in 1868 a corporation

was formed with a capital of \$50,000. The business has increased to such an extent that it requires double this amount, although the capital stock has not been increased above \$50,000. There are employed one hundred and twenty-five hands in the establishment. Several specialties are made besides its standard work, including the Broughton self-closing faucet and gas-cocks. Its officers are Henry S. Hyde, president; George M. Atwater, treasurer; Henry M. Brewster, general manager.

SPRINGFIELD DROP FORGING COMPANY employs sixty hands. Business founded in 1892. Incorporated May, 1893. Capital, \$45,000. Officers, H. W. Goddard, president; A. L. Moore, treasurer and general manager. It makes bicycle bearings, wrenches, of great variety, and special forging, as may be desired. Its shops are at Brightwood.

NATIONAL NEEDLE COMPANY makes a specialty of sewing-machine needles, and its work has reached a high degree of excellence. It has a large export trade, and maintains a house in London which supplies the trade of Great Britain. The business was founded in 1873, by George H. Bleloch, of Springfield; John S. Abbott, of Boston, and John F. Trow, of New York, the latter publisher of Trow's New York Directory, all of whom are now deceased. The capital stock is \$100,000. Employment is given to one hundred and fifty hands. The officers are: J. D. Safford, president; M. E. Newmarch, treasurer.

SPRINGFIELD GLAZED PAPER CO. manufacture all varieties of colored, glazed papers, and coated and plain card-board. Manufactory in West Springfield, near the entrance to the bridge over the Connecticut River. Business founded in 1874. Capital, \$100,000. President of the corporation, Harvey Platt, of Philadelphia; vice-president, Edward M. Gilman; treasurer and manager, Col. John F. Marsh, of Springfield. Col. Marsh is a member of the Loyal Legion, having served in the War of the Rebellion, and was also a soldier in the Mexican War.

HOLYOKE CARD AND PAPER CO., whose manufactory is at Brightwood, was founded in Holyoke. In 1884 it was moved to its present location and incorporated with a capital of \$60,000, which has since been increased to \$150,000. It furnishes employment to one hundred and fifty men and women. The output of the factory is fifteen tons a day of glazed papers and coated card-board. The president and manager is Franklin Pierce, who for twenty years was connected with a New Hampshire manufactory, the Nashua Card and Glazed Paper Company. The treasurer is H. H. Bowman, president of the Springfield National Bank.

BIRNIE PAPER CO. employs one hundred hands in the manufacture of envelopes, boxes and stationery, which it furnishes for the trade. Its factory is located at Brightwood, to which it removed in 1892. The members of the firm are William, Alfred and Donald Birnie.

TAYLOR & TAPLEY MANUFACTURING CO. make cloth-lined and glazed papers. Capital, \$16,000; employs thirty-five hands. Its products of cloth-lined papers are sent to New York, where they are made into collars and cuffs. President, George W. Tapley; treasurer, J. Duane Parsons; clerk, S. L. Kenyon.

UNITED MANUFACTURING CO., manufacturers of cloth-faced material, and glazed and enameled papers for printers' and lithographers' uses. Works in Springfield and New York. Officers: G. A. Goldsmith, president; Jas. H. Hoffman, vice-president; J. Levine, treasurer; S. L. Kenyon, secretary. Office at 311 East Fifty-third street, New York.

TAYLOR, NICHOLS & CO. is a partnership engaged in the manufacture of paper-teries. Founded in 1887, and give employment to eighty hands.

SPRINGFIELD ENVELOPE CO. was incorporated in 1886, and employs one hun-

dred and fifty hands. Capital, \$60,000. George A. Russell, President; Nathan D. Bill, vice-president; Frederick A. Bill, treasurer; Edward E. Bill, secretary.

NATIONAL PAPETERIE Co. was founded in 1889, for finishing fine and fancy stationery for the trade. Capital, \$100,000. Employs one hundred hands. Officers: George A. Russell, president; James A. Bill, Jr., treasurer; Louis C. Scheuing, clerk.

HAMPDEN CORUNDUM WHEEL CO. was founded in Chester, and incorporated in 1888, with a capital of \$16,000. It manufactures emery-wheels, grinding-machinery and calender-rolls. Works at Brightwood. Capital, \$16,000. Employs twenty hands. Willard P. Leshure, president and treasurer; George R. Rayner, secretary.

UNITED STATES SPRING BED COMPANY was founded in 1889, by J. F. Peck, who had previously conducted the business as an individual enterprise. Capital, \$10,000. Employs thirty hands. Works at Brightwood.

ELECTRON MANUFACTURING COMPANY was founded in Brooklyn, in 1887, and was moved to Springfield in 1891. Its capital is \$100,000. Incorporated in 1887. Employs one hundred hands in manufacturing electric elevators and electric light and power machinery, motors and dynamos. Their Perret motor received the highest award at the Paris Exposition, in 1889, and at the World's Columbian Exposition in Chicago. Capital, \$200,000. Henry Cutler, president and manager; W. E. Wright, vice-president; Leon J. Harley, superintendent.

GEORGE A. SCHASTEY COMPANY was incorporated in 1891, with a capital of \$120,000. It does nothing but contract work in the line of cabinet, store and office furnishings, of the finest and most artistic quality. It keeps no goods in stock. Officers of the corporation: Noyes W. Fisk, president; O. K. Merrill, treasurer; and J. P. Harding, secretary.

P. H. POTTER employs one hundred and thirty hands in manufacturing doors, windows, and interior finish, including cabinet and store work. The business was founded fifteen years ago, and his patrons are widely scattered throughout New England.

WALTHAM WATCH TOOL COMPANY was incorporated in 1890, with a capital of \$25,000. It was founded in Waltham as a partnership, and afterwards removed to Springfield. It manufactures lathes and a large variety of tools used in watchmaking and repairing. It employs twenty-five hands. Charles E. Van Norman, president; William E. Wright, vice-president; John McFetheries, treasurer.

DURVEA MOTOR WAGON COMPANY.—Incorporated with a capital of \$100,000. It makes the horseless carriages which have attracted considerable attention in this country and in England. In the latter, they have been largely successful in competition with other makers. President, George Henry Hewitt; vice-president, W. O. Collins; treasurer, Theodore W. Leete.

HUTCHINS NARROW FABRIC COMPANY manufacture a large variety of tapes and bindings. Its shops were formerly at Worcester and at Northampton, but within a few years the entire business has been concentrated in Springfield. Capital \$40,000. Employs twenty-five hands.

NATIONAL PHOTO PAPER AND CHEMICAL COMPANY is a new industry in Springfield, which was incorporated in 1895. Capital, \$50,000. Many thousand dollars have been spent in this country in trying to produce paper used in photography, and mostly without success. A Holyoke mill has recently produced a paper claimed to be of equal merit with that made in Germany. This company was organized to continue the experiment, and utilize the product of the Holyoke mill. Just as the company was ready to supply the trade the factory and stock were burned. In the autumn of 1896 the work was resumed and thus far with success. Gelatine,

collodion, and mat surface papers are now made. While the paper is made in Holyoke, the coating and sensitizing is done by the company in Springfield. The inner coating of the gelatine paper is done by the company, but the sensitizing is the work of another concern.

CHAPMAN VALVE MANUFACTURING CO. is the largest and most important establishment at Indian Orchard, the eighth ward of Springfield, and employs about three hundred hands. It was made a corporation in 1875 with a capital of \$60,000, which has been increased from time to time as its business demanded, until it is now \$600,000. Its products are valves and gates for water, gas, steam, oil, acid and ammonia, and gates for fire hydrants. Its business has increased to such an extent, in addition to having offices and salesrooms in the principal cities in this country, it has for some time maintained a branch house in London, from which the European trade is supplied. Its export trade has become a very important part of its business, and there is scarcely a country in the world that does not use its products. The officers of the company are: James D. Safford, president; Charles J. Goodwin, treasurer; Jason Giles, general manager.

INDIAN ORCHARD CO., and its predecessors under different corporate names, is the oldest concern in Indian Orchard. The present company was incorporated in 1890, with a capital of \$225,000. It employs from one hundred and twenty to one hundred and fifty hands in the manufacture of cotton warp, both plain and colored. The predecessor of this company was at one time the largest and most prosperous manufactory within the limits of Springfield, and gave employment to eight hundred hands. The burning of its largest mill and the embezzlements of its treasurer caused its bankruptcy, and a reorganization followed in the course of time. Its officers are: President, A. N. Mayo; treasurer, H. K. Wight; agent, W. C. Godfrey; superintendent, F. A. Packard.

HODGES FIBER CARPET CO., incorporated in 1895 with a capital of \$90,000; employs one hundred hands in the manufacture of fiber carpets of various designs, and stands third in importance in Indian Orchard where its factory is located. The officers are: Andrew J. Bailey, president; Frank F. Hodges, treasurer; William M. Stevenson, superintendent.

HOUGH CASH RECORDER CO. was incorporated in 1895 with a capital of \$30,000. It manufactures cash recorders and employs twelve hands. President, H. K. Wight; treasurer, Charles J. Goodwin; general manager, H. C. Spence.

INDIAN ORCHARD SCREW CO. employs thirty hands in the manufacture of special screws and bicycle bearings. The officers are: W. B. C. Stickney, president, and G. O. Goodwin, treasurer.

METALLIC DRAWING ROLL CO. was incorporated in 1890 with a capital of \$80,000. Employs forty-five hands in the manufacture of various machinery used in cotton factories. Emerson Gaylord, president; Charles J. Goodwin, treasurer; Henry C. Spence, general manager; C. E. W. Dow, agent.

AGAWAM MANUFACTURING CO., incorporated in 1892, with a capital of \$200,000, make men's, women's and children's underwear of the highest grade, beginning with the raw material and ending in the complete garment, which finds a quick market where high-class goods are in demand. Employs two hundred hands. The officers are John M. Smith, of Smith & Murray, president; James W. Kirkham, treasurer; and C. E. Fuller, manager.

BEMIS & CALL HARDWARE AND TOOL CO. employ about sixty hands. Incorporated in 1855 with a capital of \$26,400. It was founded in 1835 by Stephen C. Bemis and Amos Call. The concern makes wrenches and a variety of tools. The officers of the corporation are: W. K. Baker, president; and W. Chaplin Bemis, treasurer.

BEMIS CAR BOX CO. manufacture trucks and journal boxes used in electric cars. The company was founded in 1877 and incorporated in 1885, with a capital of \$300,000. Employs about sixty hands. The officers are: Sumner A. Bemis, president; G. B. Hewlett, treasurer; George M. Hoadley, general manager; and E. N. Richards, superintendent.

DAVIS ELECTRICAL WORKS, incorporated under the laws of Maine, with a capital of \$200,000 in 1893. It employs eighty hands in the manufacture of high-grade incandescent lamps.

SPRINGFIELD KNITTING CO. manufacture a fine grade of knit underwear for infants, misses and ladies, including the alma sleeve and combination suits. It employs seventy hands. Capital, \$25,000; and was founded in 1892. Gurdon Bill, president; Nathan D. Bill, treasurer; Clifford B. Potter, secretary and manager.

GILBERT & BARKER MANUFACTURING CO. was founded in 1868 for the purpose of producing a gas machine that would supply to country homes and summer and winter resort hotels, located away from a gas plant, with a superior illuminating gas which would provide as agreeable and effective a light as that maintained in towns and cities. The Springfield gas machine made by this company is widely known for its excellence, the results of twenty-five years' experience in the business. None but the best material and best workmanship enter into the products of this concern. These machines are in use in almost every part of the United States. The company was incorporated in 1870, with a capital of \$40,000. The officers are: J. F. Barker, president; W. C. Clark, treasurer. Employment is given to thirty-five hands.

HIGHLAND BREWING CO., brewers of American lager beer, was incorporated in 1894, with a capital of \$300,000. This concern is the outgrowth of the brewing business begun by Oscar Rock in 1869. After his decease in 1874, his business was bought, in 1876, by Christian Kalmbach and Theodore Geisel, the former a practical brewer, who had served in the brewing business in Germany. Owing to the growth of the business more capital was needed, and a corporation was formed. The yearly product reaches one hundred thousand barrels, which finds sale in various parts of the country, but more generally in New England. The president and treasurer is Theodore Geisel, and C. T. Shean is clerk of the corporation.

SPRINGFIELD BREWING CO. was incorporated in 1890 with a capital of \$300,000. Its yearly output is one hundred thousand barrels of lager beer. The president is Selig Manilla, and its treasurer William C. Van Vliet, of New York. "Tivoli" is the special name given to the product of this brewery, which has found a constantly increasing sale. Nothing of a deleterious nature enters into its making, and is kept at the highest standard of excellence.

KIBBE BROTHERS CO., manufacturers of confectionery, was conducted as a firm for over fifty years. It was founded in 1843 on Cross street, then better known as Pig alley. Horace Kibbe was the originator of the business of candy-making in Springfield. The first firm was Simons & Kibbe, which later was changed to Kibbe & Crane, and still later to Kibbe, Crane & Co. Finally it was changed to Kibbe Brothers & Co. After the death of the two brothers, George A. and Horace Kibbe, the interest of the two was purchased by Edwin McElwain and Sherman D. Porter, who had for some years prior been connected with the firm. In 1892 a corporation was formed with a capital of \$100,000. It has been for many years one of the most prosperous concerns of Springfield's many industrial interests, maintained by endeavoring to excel in whatever it has produced. The officers are: President, Sherman D. Porter; treasurer, Edwin McElwain; secretary, Robert B. Cleeland.

TUCKER & COOK MANUFACTURING CO. have mills in Springfield and Conway

for the manufacture of white and colored warp, knitting cotton, carpet warp, white and fancy twines, cotton lines, and a variety of other goods. It was incorporated in 1887, and has a capital of \$60,000. The officers are: President, Chelsea Cook, Conway; treasurer, A. M. Cook.

SPRINGFIELD FOUNDRY CO. was incorporated in 1887, and now has a capital of \$100,000. Henry K. Baker is president, and David Hale, treasurer. The company manufacture hydraulic, electric and power elevators, and steam and power pumps, besides making iron, brass and composition castings.

ATLANTIC REFRIGERATING CO. was incorporated March, 1896, with a capital of \$50,000. The officers are: T. C. Page, Chicopee; vice-president, Emerson Gaylord; secretary and treasurer, F. H. Page.

HAMPDEN PAINT AND CHEMICAL CO. was incorporated in 1852, and is one of the oldest in Springfield. Its capital is \$100,000. The officers are: Edward P. Chapin, who is also president of the Pynchon National Bank; secretary and treasurer, Edmund K. Baker.

BRIGHTWOOD BOX-MACHINERY CO. was incorporated in 1895, and has a capital of \$50,000. Shops at Brightwood. The officers are: L. W. Brown, president; Frank Jones, of New York, vice-president; Donald Birnie, secretary; Alfred Birnie, treasurer.

CHADWICK COPYING-BOOK CO. manufacture a special book for copying letters. Incorporated in 1887 with a capital of \$50,000. Officers: E. W. Makepeace, president; E. Wells, secretary and treasurer.

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CHAPTER CXLVI.

INDUSTRIAL—Continued.

HOLYOKE, THE PAPER CITY.*



AS no language can adequately express human emotions, no description will represent to the reader the picturesque setting of the subject of this sketch. The charming scenes of the old world or the new, celebrated in art, and song, and story, are fully appreciated or enjoyed only by those who stand in their glorious presence. And the Connecticut, who can reveal her wonders? You who have read of all those, and have not seen this loveliest valley of the continent, "take the wings of the morning," and stand here upon some eminence, serene and still, and look afar upon the winding stream, the fertile meadows, the gentle sloping hills, the undulating highlands, and the towering, misty mountains,—all wrought into myriad landscapes as the eye pursues the changing scene. Stand and look, and be silent! You cannot tell it. No one has told it to you. You have a vision of nature's noblest handiwork. And here, where her lavish treasures are so grandly spread, art in her diviner forms has filled the vales with the hum of industry and adorned the hillsides with happy homes.

Along this stream, fruitful of cities within a brief flow of eighteen miles and touching one another, the Connecticut bathes the shores of four sister cities—Springfield (the largest, oldest and southernmost), Chicopee, ancient Northampton (the northernmost), and Holyoke (the second in size and youngest in years)—from many

* By Edwin L. Kirtland.

of whose summer pleasure-paths three of these cities appear in one view, with their pastoral borders, their smoke-crowned chimneys and their steepled emblems of "peace and good-will."

Holyoke was without fame or consequence until 1847. A few farms covered the entire area now occupied by the city proper, and small settlements, known as Ireland Parish and Baptist Village, located a mile or two south or west from the river, on the main thoroughfare between the old towns of Springfield and Northampton, relieved the loneliness of rural life in this remote border of the ancient town of West Springfield. But the rapids of the Connecticut, separating this section from Hadley on the north, had long been known to local commerce, not, indeed, as an aid, but as a serious obstruction in the chief water-way of New England, and to the improvement of this rapid and others upon this famous and beautiful stream the minds and capital of enlightened men had been devoted for more than one generation.

The Connecticut, from its origin in Connecticut Lake, in extreme New Hampshire, to its mingling with the salt waters of Long Island Sound, a stretch of nearly four hundred miles, flows eighty miles southwest and then due south, forms the boundary between New Hampshire and Vermont, cuts in twain the states of Massachusetts and Connecticut and gives its name to the latter. Along the Vermont border the river has at first a width of one hundred and fifty feet, and in a flow of sixty miles further it attains three hundred and ninety feet, but in Massachusetts its narrowest sections are about five hundred feet and its widest about one thousand. The fall from lake to sound is fifteen hundred and eighty-nine feet. Through the first one hundred miles the stream pours down a mountain torrent, the aggregate fall being about one thousand feet, while the rest of the descent is accomplished chiefly at Bellows Falls, Vermont, forty miles north of the Massachusetts line, where the fall is forty-two feet; at Turner's Falls, Montague, Mass., where it is seventy feet, and at Holyoke, where the total fall, within a mile or so of river flow, is sixty feet. Below these three there is no one considerable fall, save the Enfield Rapids, and the river can be made navigable for boats and barges from Holyoke to the sea.

The great valley drained by New England's largest river is bordered, east and west, by concurrent ridges of the White Mountain system, and in tracing its course downwards within these mountain borders, its natural outlet would be found at New Haven, Conn., but the stream by some prehistoric upheaval or cataclysm, breaking through the Holyoke range, a detached member of the White Mountain system, seems to have relocated its channel and now finds the sea thirty-five miles east of its probable original outlet. Approaching the Connecticut from the east, the Holyoke range suddenly veers southerly, breaking just below the flexion, as if twisted in twain in the formative period of the earth's crust. Rising above the chasm, Mount Holyoke on the north and Mount Tom on the south, respectively 1300 and 1120 feet high, these twin mountains stand as fitting watch towers whence to view the beauties of the scene of a tremendous industrial enterprise which will forever stand as one of the grandest in history. Escaping the mountain barrier in a south-easterly direction and moving onward three miles, the stream then bends south-westerly and continues three or four miles further; again resuming its south-easterly direction and moving onwards three miles more, it bends suddenly towards the south-west and spans three miles more, forming with the subtending mountain background a right-angled triangle now known, world wide, to the devotees of commerce, for its products and wonderful prosperity. How many ages these grand possibilities awaited the present no human knowledge tells. The fearful agencies that hardened the planet's crust, that folded and seamed it with hills and valleys, that ground out its rocky bed and

taught the river where to flow, that pressed up adamantine walls to guide these rapids and preserve them for the use of civilized man; these long preceded the advent of human enterprise, but surely prepared the sandy hill and plain, and the rock-guided river for the age of machinery.

But before the great forces of the river were to be used as power for operating machinery, its improvement as a highway of commerce was undertaken by the Hon. John Worthington, of Springfield, and nineteen others who, Feb. 23, 1792, procured from the Great and General Court an act of incorporation "for the purpose of rendering Connecticut river passable for boats and other things from the mouth of the Chicopee river northward through the Commonwealth," entitled "the Proprietors of the Locks and Canals on the Connecticut."

Work was begun at South Hadley Falls, as soon as possible, under the superintendence of Benjamin Prescott, of Northampton, engineer, who was subsequently the superintendent of the United States Armory at Springfield. The proprietors contemplated the improvement of the rapid at Montague as well as that at South Hadley, but the cost proving much greater than the estimates, the development of the former was abandoned to others, and "Samuel Henshaw and Benjamin Prescott, of Northampton, and Jonathan Dwight, of Springfield and others," procured a new charter under the name, "The Proprietors of the Upper Locks and Canals on Connecticut river," while the old corporation continued its work upon the lower canal. The canal at South Hadley, sunk for a considerable part of the distance in red sandstone, was two and one-half miles long, extending northward from the bluff near the end of the present great dam, and opening above into the pond formed by a wing dam. The waterway was constructed to accommodate boats twenty feet wide by forty feet long, but increase of commerce, after ten years of use, necessitated deepening the canal four feet throughout its entire length, and the substitution of a new system of locks, the new work being undertaken by Ariel Cooley, a man of rare ingenuity and energy, whose administration of the practical affairs of the corporation extended from 1802 to the date of his death, about 1823-4. Mr. Cooley three or four times rebuilt or enlarged the dam, receiving as his revenue for management and repair, one-quarter of the receipts of the corporation. The last wing dam was built by Mr. Cooley's heirs, after his death, and was still standing when, in 1849, the great dam of the Hadley Falls Company was built. Prior to this time only a community grist mill existed on the south side of the stream and consumed its small fraction of the great errant power, supplied by a wing dam, and this franchise was ultimately surrendered to the new corporation.

Necessarily great secrecy marked the movements of the sagacious capitalists who in 1846 undertook the purchase of the lands and franchises involved in their project, and they were eminently fortunate in the selection of the late George C. Ewing, of this city, a member of the scale-manufacturing firm of Fairbanks & Company, who had bought the farm on the "Highlands," upon which he erected the residence which he occupied until the time of his death. Mr. Ewing's first successful essay was the possession of thirty-seven acres of land embracing the bluffs now known as Prospect Park, and next the completion of his bargain with the Hadley Falls Company, which had built in 1831 the community grist mill, afterwards known as "Little Hampden," which agreed to sell its property and rights to the new company and take \$100,000 worth of its stock. The franchises of "The Proprietors of the Locks and Canals on the Connecticut river" were acquired, as well as, by consummate art, the eleven hundred acres of farm lands embraced within the boundaries of the present Water Power Company's domain. In 1847 Thomas H. Perkins, Geo.

W. Lyman, Edmund Dwight, their associates and successors were incorporated by the Massachusetts Legislature "for the purpose of constructing and maintaining a dam across the Connecticut river and one or more locks and canals in connection therewith, and of creating a water-power to be used by said corporation for manufacturing articles from cotton, wool, iron, wood and other materials, to be sold or leased to other persons or corporations, to be used for manufacturing or mechanical purposes, and also for the purpose of navigation," and said corporation was to have a capital of four million dollars with authority to hold real estate not exceeding a half million dollars in value, exclusive of improvements. The prices paid for lands and franchises were exorbitant, aggregating \$119,000, and yet even this amount seems small when weighed against the grand enterprise of the projectors, and the amount of capital named by them.

Measurements in July, 1847, the driest part of the year, proved the quantity of water in the river running past a given point to be 6,980 cubic feet per second, descending the rapid at the rate of sixty feet in a mile and a-half, and draining an area of 8,144 square miles. As a "mill-power," so called, estimated at sixty or seventy horse-power, was considered to be thirty cubic feet of water per second when the head and fall is twenty-five feet, the volume of water being graduated to a less or greater quantity, as the head and fall is greater or less than twenty-five feet, it is seen that under the 59-9-10 feet effective head and fall, from the crest of the proposed dam to stillwater below, the "mill-power" would be a small fraction more than $12\frac{1}{2}$ cubic feet per second, and the river's flowing volume of 6,980 cubic feet per second would signify 550 mill-powers available during the driest season of the year. Therefore these projectors, arguing from experience, believed this vast power capable of building a city of two hundred thousand souls, and drew their plans accordingly.

The place chosen for the dam extends between two rocky promontories, on opposite sides of the river, 1,017 feet apart, the one on the south side forming the northern boundary of Prospect Park, in this city. This location was fixed August 17, 1847, by a survey begun July 29 preceding, the charter was granted in the winter of 1848, and work upon the dam was immediately begun with a large force of men under the general direction of Mr. Ewing, who had acted as land-agent. But the Fairbanks Company having withdrawn from the enterprise in January of this year, Mr. Ewing soon resigned and gave place to Mr. C. B. Rising, of Northampton, who conducted the work to its completion, November 19, 1848. Soon after the closing of the gates, at ten o'clock, serious leaks appeared in different parts of the structure, and as the struggling waters rose higher and higher upon the dam the engineers were convinced that the force to be exerted upon their structure had been greatly under-estimated.

Word was speedily passed to the thousands of interested spectators who had assembled to witness the closing up of the great river, hundreds of whom were exposed in the empty rocky bed of the recent rapid. Fortunately all heeded the warning, for at 3.20 P.M. the huge dam broke from its foundations and was rolled and lashed by a wave of water at first thirty feet high. The spectacle is described by eye-witnesses as at once grand and awful. The construction had cost about \$75,000, but the projectors were not to be discouraged by this disaster, and in the spring of 1849 preparations were begun for the building of the second dam, which was completed October 22, 1849, at a cost of about \$150,000. The chief engineer who planned the new structure, which stood almost without repair for twenty years, was Philander Anderson, who received his first training as an engineer at West Point. The work, built of timber, plank and bolts, and weighted with rocks and

gravel, was accomplished by means of coffer dams extended into the stream at first two hundred feet from either bank, and afterwards, as fast as the permanent structure was laid and the summer ebb of the water favored, these dams were extended farther and farther into the river until the entire span had been completed. To favor the construction, forty-six gateways had been provided along the upper part of the dam, with gates sixteen feet wide by eighteen feet long, all of which were left open for the escape of the water; at a given signal, all were simultaneously closed, and the bed of the rapid became bare, and the pent-up waters began to rise upon the upper surface of the dam. The structure soon proved its quality, the gates were dropped at 12.35 o'clock, and the waters having risen to its top fell in one unbroken sheet over the crest at 11 o'clock, amid the cheers and enthusiasm of the assembled multitudes. In form the dam was like the longitudinal vertical section of a roof, the slope facing or projecting into the pond and weighted with gravel, and the perpendicular part facing down stream.

After the lapse of twenty years this perpendicular face was found to have been seriously damaged by the recoil of debris flowing over the dam during spring floods, and thorough repair was immediately inaugurated, resulting in the almost entire renewal of the old structure, and the addition thereto of the other half of the "roof," greatly augmenting its strength and lessening the vibration which during the spring floods was felt in distant parts of the city. As, however, this substantial structure was not built of indestructible material, the Water Power Company, in accordance with its ultimate design, has now in process of construction a dam of solid masonry, which must prove practically indestructible. The length of the new dam will be 1020 feet between abutments, and its location below or down stream from the old dam, distant from it 132 feet at the Holyoke end and 112 feet at the South Hadley Falls end. The height of the dam is 38 feet, the thickness, five feet below the crest, about 15 feet, and at the base, 54 feet 3 inches. A cross section of the model now in the directors' room at the Water Power Company's office, shows rear, crest and face walls of heavy cut granite blocks, many of which weigh several tons each, all of which were cut and fitted and numbered for their places before leaving the quarry. Of these cut blocks 3700 are required for the face alone, and the aggregate amount of granite dimension masonry used will be 13,625 cubic yards. The stone abutments are of the same character as the rest of the work as to materials and workmanship; the one on the Holyoke side of the river being 42 feet high, 29 feet wide at the bottom, 12 feet wide at the top and 225 feet long, and that on the South Hadley Falls side, of similar width on top, is 230 feet long. The hearting or internal structure of the huge mass is of rubble masonry, laid from the stones of the river bed with "alpha" cement, of which 40,000 barrels will be used, the latter having been selected for this work from many specimens presented to the authorities, and after the severest tests known to the art. The amount of such rubble masonry used will be about 34,500 cubic yards. It seems needless to recite the means and methods used in binding together the parts of this monster work; suffice it to say that every care and precaution have been exhausted to make it perfect in form and construction.

To the engineer the form also of the new dam will appear of great interest. Viewed from the back, its granite courses, laid like steps, each three blocks high, and extending the entire length of the dam, retire towards the top; from here the line slants gently forward towards the crest, from which point the water will flow forward, at first, over a parabolic curve, because that is the form taken by a body of water four feet deep, flowing over the crest of a perpendicular dam, from the lower part of which curve the dam assumes the cycloidal form, and carries its burden of

water gently downward and then slightly upward, discharging it well above the foundations of the structure. The cost of the new dam is estimated to aggregate about \$600,000 in round numbers, and it will stand as a fitting monument to the skill and wisdom of the builders, and an example of honest thoroughness worthy of any inspection. The old dam will remain where it is, and doubtless the space between it and the new dam will eventually fill in with drift.

Through the bulkhead on the South Hadley side of the river the water is fed into a short canal to supply two large paper-mills and a gingham-mill, while the balance of the river's flow is admitted into an elaborate canal system on the Holyoke side of the river through thirteen gateways which are operated by a water-wheel set in a tower at the end of the dam. At the inshore end of the bulkhead is a stone lock for the passage of boats. The receiving canal is ten hundred and thirteen feet long, one hundred and forty feet wide at the bottom and four feet wider at the surface, is stone-walled on either side, as is nearly the entire system, forming a right angle with the dam and running from it nearly southeast. From its eastern end its waters are turned, in a southwesterly direction, into the upper level canal which, fifteen feet deep, continues a mile and a quarter in a straight line, at first as wide as the supply canal, but narrowing at the rate of one foot in width for every one hundred feet in length, and ending with a width of eighty feet. Parallel with this canal, of like dimensions, distant four hundred feet easterly, and twenty feet lower, runs the second level canal into which fall the waters of the former, after flowing through the mills and moving their machinery.

From the north end of this waste-water canal its waters are carried in another canal which runs easterly and at length southerly, following the contour of the river, and ultimately flowing into the third level canal projected from the south end of the second level canal first named, thus forming a canal border about two miles long, whose waste waters, after service in the riparian mills, fall into the Connecticut. Fortunate in the topographical features of the adjacent lands, this magnificent water system was wisely supplemented by a system of streets running parallel with and at right angles to the adjacent canals, with only such modifications of the plan as the changes in direction of the riparian canal rendered necessary. The upper and second level canals traversing the busiest portion of the city are crossed by streets at intervals of one thousand feet, while half way between each two of these streets are others without bridges. The large territory embraced within the boundaries of the water system is practically a level plain, but from the upper level canal westward the ground rises rapidly, attaining nearly its greatest average height about eight hundred and thirty feet from the centre of the first level canal; here High Street was laid out parallel with the canal and of the same length; parallel with High in an area of about one square mile the other streets are laid out three hundred feet apart, with broad alleys half way between each two streets. Other sections of the city, upon plateaus one hundred feet higher, since developed, are conformed to this established plan except where conditions or old customs have ruled otherwise.

Upon this convenient system has grown up a city numbering, according to the school census of May, 1896, forty-four thousand, one hundred and fifty-three souls. This population is included chiefly within the boundaries of the Water Power Company's original eleven hundred acres, now largely held by private citizens. But far beyond this region, along Northampton street and rising into the adjacent heights beyond, are some of the best residences in the city, while hundreds of sites, having commanding views of the most charming scenery of the region, still invite the purchaser. Every section and remote region has been made accessible, and the peculiar

music of the electric car is heard away among the fastnesses of Mount Tom, where thousands of pleasure-seekers spend the holiday hours of a busy life, and the stranger sits upon some lofty crag or tower to survey the soft beauties of the distant scene.

But Nature has not done all this. Though wonderfully lavish on every hand, her best gifts are held as the rewards of industry. The intense life, the merry music of organized forces throbbing as with real life, while the vitalizing current pours through every vein and artery of the wonderful system from the full heart of the Connecticut—these are but the answering rewards of care and toil, bestowed in planning and developing the prosperous city beneath our feet. The thoughtless may glibly say that "corporations have no souls," but it is not true. *These* corporations, that have builded this astonishing city, have souls, and they are the souls of the rare men who have given them not only life, but great longevity.

Witness the Parsons Paper Co., founded in 1853, capital, \$60,000; the Lyman Mills, founded in 1854, now grown to be one of the largest of the New England cotton mills, with a capital of \$1,470,000; the Holyoke Paper Co., 1857, nominal capital, \$500,000; Prentiss Wire Mill, 1857; Holyoke Machine Co., 1862, capital, \$300,000; Hadley Thread Co., 1863, capital, \$600,000; Beebe, Webber & Co., 1863; Merrick Thread Co., 1865, capital, \$750,000; Whiting Paper Co., 1865, nominal capital, \$300,000; Germania Woolen Mill, 1865, capital, \$150,000; Riverside Paper Co., 1866, capital, \$500,000; Franklin Paper Co., 1866, capital, \$60,000; Valley Paper Co., 1866, capital, \$200,000; Henry Seymour Cutlery Co., 1869, capital, \$25,000; Holyoke Warp Co., 1869, capital, \$60,000; Springfield Blanket Co., 1870, capital, \$150,000; Crocker Paper Co., 1871, capital, \$300,000; Massasoit Paper Co., 1872, capital, \$300,000; Beebe & Holbrook Co., 1872; Excelsior Paper Co. 1873; Newton Paper Co., 1873, capital, \$24,000; Farr Alpaca Co., 1873, capital, \$400,000; Massachusetts Screw Co., 1873, capital, \$50,000; Connor Brothers' Woolen Mill, 1874; William Skinner Silk Mill, 1874, capital, \$100,000; National Blank Book Co., 1875; Albion Paper Co., 1878, capital, \$60,000; Wauregan Paper Co., 1879; Dean Steam Pump Co., 1879, capital, \$300,000; Chemical Paper Co., 1880, nominal capital, \$250,000; Nonotuck Paper Co., 1880, capital, \$155,000; Holyoke Envelope Co., 1880; Whitmore Manufacturing Co., 1881, capital, \$25,000; Coburn Trolley Track Co., 1888, capital, \$100,000; American Pad and Paper Co., 1888, capital, \$50,000; D. Mackintosh & Sons Co., 1888, capital, \$100,000; Connecticut River Paper Co., 1888, capital, \$200,000; McCallum Constable Hosiery Co., 1888; Parsons Paper Co., No. 2, 1888, capital, \$300,000; Powers Paper Co., 1889; Holyoke Hydrant and Iron Works, 1890, capital, \$60,000; Keating Wheel Co., 1891, capital, \$250,000; Chadwick Plush Co., 1891; Norman Paper Co., 1891, capital, \$300,000; George R. Dickinson Paper Co., 1892, capital, \$150,000; Ford Bit Co., 1892, capital, \$30,000; Goetz Silk Manufacturing Co., 1893; George C. Gill Paper Co., 1891, capital, \$100,000; Hampden Glazed Paper & Card Co., 1891, capital, \$56,000; Linden Paper Co., 1892, capital, \$400,000; also the important auxiliary industries represented by such firms as: Coghlan Steam Boiler Works; J. & W. Jolly's Machine Shops; C. H. Baush & Sons; Kennedy & Sullivan; Fenton & Dunn, Carriage Makers; Holyoke Steam and Gas Pipe Co.; Gabriel Doran, Expert Heating and Ventilating Engineer; Franklin W. Ely; Casper Ranger, and the Connecticut River Manufacturing Co., Building Contractors; and many other concerns of scarcely less note on the Holyoke side of the Connecticut; with the Carew and Hampshire Paper Companies, and the Glasgow Gingham Mill, on the South Hadley side of the river. The aggregate nominal capital of the wealth producing corporations is over \$12,000,000, but the actual capital far exceeds this figure.

The total monthly pay-rolls, in fair times, are a half-million dollars. Thus, many of the above concerns, now known the world over, established with a capital of tens of thousands, now reckon their resources in hundreds of thousands and millions. So young is the city, and comparatively so recent the establishment of its older and greater concerns, that the most of their promoters are still found among their active managers. Comparatively few of these men—like J. C. Parsons, of the Parsons Paper Company; O. H. Greenleaf and C. H. Heywood, of the Holyoke Paper Company; George R. and R. C. Dickinson, and a few others among manufacturers—have passed out of life or left the city for other fields of endeavor. The city is unique in having no retired class of wealthy men. *Industria et Copia* is the motto on the city's seal; and that the one is the legitimate crown of the other, the results of these created industries are but true testimony.

The carrying trade of the city is done by two railroads—the Boston and Maine and the Holyoke and Westfield, with their connections, by which cars are placed at the door of every corporation.

The local banking facilities are supplied by the Hadley Falls National Bank, 1851; capital, \$200,000. The Holyoke National Bank, organized in 1872; capital, \$200,000. The City National Bank, 1879; capital, \$500,000. The Home National, 1884; capital, \$250,000; and the Park National, incorporated in 1891; capital, \$100,000. The city has also these Savings Banks: The Holyoke, incorporated in 1855; deposits, \$2,762,947; surplus and guarantee fund, \$134,955. The Mechanic, 1872; deposits, \$941,693. The People's, 1885; deposits, \$417,239; surplus, \$17,446. Also two Co-operative Banks: the Holyoke, incorporated in 1880; and the City, incorporated in 1889.

These means and material resources had produced in 1850 a population of 3,243; in 1860, 4,997; in 1870, 10,773; in 1880, 21,961; 1890, 35,545; and by the last school census, May, 1896, 44,153. While the valuation for the last fiscal year was: Real estate, \$21,908,620; personal estate, \$7,116,160; resident stocks, \$532,345; non-resident stocks, \$877,655; total, \$30,434,880.

Holyoke was incorporated as a town March 14, 1850, receiving the name of the mountain overlooking the city, the mountain having been named many years before in honor of Elizur Holyoke, a prominent resident of the vicinity. The city charter was granted April 7, 1873, and the mayors have been: Hon. W. B. C. Pearsons, for many years, and now, judge of the police court; Hon. Wm. Whiting, ex-congressman from the Eleventh district; R. P. Crafts, Wm. Ruddy, F. P. Goodall, James E. Delaney, Dr. J. J. O'Connor, Jeremiah F. Sullivan, Michael J. Griffin, Dennie L. Farr, Marcie H. Whitcomb, Henry A. Chase, James J. Curran and Dr. George H. Smith, now in office. The city was divided into seven wards, and the government was organized with a board of aldermen, consisting of one representative from each ward, elected annually; a common council, having three representatives from each ward, elected annually; with a school committee, one from each ward, and two at large, each elected for three years, three each year. The above charter continued operative until January of this year (1897), when the revised charter, approved May 27, 1896, went into operation. The mayor, city clerk and city treasurer are elected annually. The legislative department consists of a board of aldermen, consisting of twenty-one members, fourteen of whom are elected by the city at large, and the other seven are each elected by and from the voters of the seven wards. The members elected at large hold office two years, one-half of the number being elected each year, and those from the several wards hold office one year. Minority representation is provided for by restricting the number of candidates to five for which one person

may vote on the Australian ballot. The school committee is organized as before, except that this body chooses its own president, who nominates the several committees. A board of public works, consisting of three members appointed by the mayor, one each year, each holding office three years, have charge of all property and public works of the city, as the name would imply, save only the water works, cared for by three commissioners, one elected each year by the aldermen; and the fire department, governed also by three commissioners, appointed by the mayor, one each year, to hold office for three years.

The city water supply, justly the pride of the citizens, now drawn from three mountain ponds located in different parts of Mt. Tom and having different water sheds, is about to receive the addition of another source, which together will give an aggregate supply of not less than 3,500,000 gallons per day, which is considered ample for all purposes present or prospective.

Within the limitations of this sketch, it is impossible, while showing the causes of such prosperity and rapid growth, suitably to represent the city's social life, and this must be left largely to inference. But such a community cannot be grown in New England, by New England capital and New England men, without the characteristics known of all New England communities. Aggregation of capital, centered in large concerns, managed by a few, giving conservative energy to business, has brought prosperity, and therewith a varied population of many nationalities. But, withal, these energetic New Englanders have not forgotten to provide every means of social development and elevation. Among these means may be noted three Congregational, one Episcopal, two Methodist, three Baptist, one Presbyterian, one Unitarian, one German Lutheran, one German Reformed, and four Roman Catholic churches. There are two large public hospitals, a large and active Young Men's Christian Association, doing Christian and literary work, and a Young Women's Association, with very successful industrial and literary classes and social advantages; a large Roman Catholic temperance society, doing charitable and literary work; a great number of literary clubs organized in every part of the city for the discussion of assigned topics of historical, scientific or literary interest, three large convents, and ninety-five other social and benevolent organizations, from which list must not be omitted the Holyoke Library Association, now having a library of 17,000 volumes, free and open to the public every week day evening, from seven to nine o'clock, and Monday, Wednesday and Saturday from two to nine P.M.

Of not less importance are the school accommodations of the city, which include five large parochial schools caring for three thousand six hundred children, and the public schools containing over 5,000 children, whose authorities administer property to the value of more than half a million dollars, incur an expenditure of about \$150,000 per annum, and are soon to crown their labors by the equipment of a new high-school building built to accommodate eight hundred students.

CHAPTER CXLVII.

INDUSTRIAL—Continued.

NORTH ADAMS.—The manufacturing and commercial interests of North Adams are not surpassed by any other town of equal size in the country. Among the industries are two print works, three dress-good manufactories, three woolen factories, six shoe factories, a large machine shop, lumber mill, etc. A portion of them are mentioned here.

ARNOLD PRINT WORKS.—The leading industry of the city is the Arnold Print Works, which operates a plant of great magnitude, the extent of which is notably apparent from all points of the city. The Arnold Print Works have four cloth mills, located at North Pownal, Williamstown, the Beaver Mill and the Eclipse Mill on the north branch of the Hoosac.

One little realizes what a thoroughly equipped and modern calico print works includes, and the bare statement that one in North Adams has buildings covering a certain number of thousand square feet of floor space and employing hundreds of operatives gives one but little idea of the inside working of such a plant and its organization, of the taste and skill and careful, painstaking thought and work required to produce ready for the consumer a fabric which shall represent in its production the highest state of the art, combined with a style and coloring to meet the most exacting taste. Paris furnishes the world with style and design—it is the universally acknowledged center. The Arnold Print Works, with its office at 5 Passage Violet, Paris, and a representative always on the ground, begins work by obtaining the newest, best and most tasteful and artistic designs for its fabrics, and keeps continually in close touch with its trend. In New York its corps of designers are producing patterns and effects from ideas of the management and adapting the Paris work to the needs and requirements of the home trade. At the works in North Adams follows the sketch making, and the engraving of the copper printing rollers. In this department are six distinct trades, represented by the most skillful workmen, who, preparatory to their employment as tradesmen, have served a full seven years' apprenticeship.

One notices immediately upon walking the streets of the city in the ways leading from the cotton mills or the freight station to the Arnold Print Works its wagons loaded with brown cotton goods. These are prepared for printing by the usual singeing, shearing and bleaching processes and come to the printing machine as smooth and white as the fuller can make them with the best machinery and chemical knowledge to aid him. The colors for printing are prepared at the works largely from crude materials, requiring in their composition a knowledge coupled with experience gained by one who makes it his life work, who knows the chemical constituents and actions of all their ingredients.

The printer who takes both the fabric and colors into his charge and from his printing machine with the engraved rollers turns out the printed cloth must needs be thoroughly alive to the importance and care necessary on his part, and brings years of careful preparation and training to his exacting work. Ordinarily one roller represents but one of the many colors of a print, but all the colors are printed at one passage of the cloth through the machine and the perfection of the work depends upon the man in charge of the machine. Then follows the processes for

"fixing" the colors, and the washing and soaping processes, all of which call for the most careful manipulation, with knowledge and judgment; and then the finishing, folding, pressing and packing soon bring the goods into remarkable condition.

Its varied product also includes indigo dyed fabrics and plain shade goods of all textures and shades, with separate departments for the work in charge of competent men. It has the best of facilities for doing the highest class of work. Its equipment includes sixteen wide printing machines with cylinder drying, ten padding machines, a Mather & Platt continuous steaming machine, with drying machines of copper capable of drying its entire product of bleached and printed fabrics; with three hundred iron indigo vats and sixteen iron dye becks and a large number of jiggers for fancy dyeing, and a full equipment for washing, soaping, preparing, tentering and calendering its product, carrying it through all the various stages of treatment.

Its buildings on the west side of Marshall street are on historic ground—on the line of the old Indian trail between and at the confluence of the north and south branches of the Hoosac, in 1861 the camp ground of the first volunteers from western Massachusetts. Their floor surface for manufacturing purposes alone, exclusive of storage and stabling, is four hundred thousand square feet, or say nearly ten acres. Its thirty-nine horizontal tubular boilers furnish steam represented by five thousand one hundred horse-power. These boilers are of the latest type, with the Hawley down draft smoke-consuming furnace, overhead return flue, and the complete plant has been installed under the supervision of D. M. Greene, C.E., of Troy, and is considered the equal at least of any in New England in point of economical working. Its water in abundant supply is brought from the Phoenix dam on the south branch of the Hoosac, supplemented by a fourteen inch pipe from its reservoir near the west portal of the Hoosac Tunnel, which is supplied from springs tapped by the tunnel itself, and mountain brooks.

It has the best equipped iron and wood-working repair shop in western Massachusetts, complete with the newest tools, lathes, power-hammer, planers, saws, with departments for steam, water and gas-piping, sheet-iron, tin-work, plumbing, etc., with competent men, not only to keep up the repairs necessary in all these lines, but to build many of the new machines.

The fire protection of the works consists of an independent system of pipe and hydrants covering the entire premises. Its hydrants are all neatly housed with several lengths of hose connected for immediate use, a steam fire-pump capable of throwing 1,000 gallons per minute through this system and also the sprinkler equipment of the buildings, by which every foot of floor surface is covered by water held in check until needed, by the Grinnell automatic sprinkler heads.

Gas for singeing and illuminating purposes is made on the premises. The gas-plant, with its storage tanks for oil and gas, is of sufficient capacity for a town's consumption. The entire plant is lighted by electricity, several Edison dynamos being run for light and power.

The offices are connected with and open directly into the main buildings of the works and the accounting force occupy well-lighted and commodious quarters. They are connected with the New York salesrooms with private telegraph and telephone lines in constant use in business hours. The Postal Telegraph and Cable Company's wires run into its offices.

The Arnold Print Works makes shipment of its goods direct from the works to buyers. It gives employment to 1,000 hands at the print works, and to 900 more at its two cloth mills—Beaver and Eclipse—within the city limits, and it distributes among these 1,900 employees over \$850,000, in wages each year. It has

paid its employees weekly since 1876—years before Massachusetts made any such requirement of the corporations doing business under its laws. Many of these employees are large property-owners and tax payers in the city, and large numbers own their homes, and the corporation is always ready to lend a helping hand to assist, on the most liberal terms, any of its worthy families in securing for themselves a home. These families make up the bone and sinew of the community, and aid in the support of all that is good, as represented by the churches, hospital and benevolent societies of all kinds.

A spur track of the Fitchburg railroad runs into its coal shed near the steam plant from which the coal is taken by Hunt's industrial railway to the boiler room. The consumption of fuel is 25,000 tons per annum, and of bleaching, dyeing, and printing materials, drugs, dye stuffs, etc., their cost per annum is represented by a sum approximating a half million dollars, some years exceeding that amount. Over 2,000,000 feet of spruce lumber is used annually in the manufacture of packing boxes in which to ship its goods. It bleaches and prints over 200,000 yards of fabric every working day throughout the year.

The officers of Arnold Print Works are : Directors—A. C. Houghton, president; C. G. Evans, New York ; E. N. Eames, New York ; W. A. Gallup, treasurer ; P. Boyd, agent ; F. P. Pearson, manager ; H. Burnham, superintendent of cotton mills. It has offices at 66 and 68 Leonard street, New York ; 66 and 68 Franklin street, Boston ; and 221 Fifth avenue, Chicago ; where, through the widely known dry goods commission house of Messrs. Faulkner, Page & Co., its products are marketed.

JAMES HUNTER MACHINE CO.—The extensive plant of this company, one of the most important manufacturing establishments in this section of the country, is on Main street, the large brick buildings of which add greatly to the business appearance of the street. A brief outline of the origin and development of this important industry will be of general interest. In 1838, James Hunter, the founder of the present concern, came from Oakesville, N. Y., having originally come from Galashiels, Scotland. In 1847 Mr. Hunter bought the foundry, then located on the opposite side of Main street, and ran it on a small scale, only three moulders being employed in making machinery castings. Several partners were at various times associated with him, and in 1857, James E. Hunter, a son of the founder of the company, with M. C. Jewett, were taken into partnership with him, the latter subsequently retiring and the business being continued as James Hunter & Son. Business increased, and in 1862 a building two stories high, 95x40 feet, was erected for the machine and wood-work department. This building is still standing, being the only survivor of the early structures occupied by the firm. Four years later the business demanded a further enlargement of the foundry, and a new brick building, 100x50 feet, was put up. In 1881 a brick building, 90x50 feet, two stories high, was erected as an addition to the machine shop. Another enlargement of the manufacturing department was made in 1889, when two fine brick buildings were completed, making a quadrangle fronting on Main street. In 1891 the firm was incorporated under the name of The James Hunter Machine Co.

In addition to the standard lines of machinery for power transmission, the firm make a specialty of fulling mills, cloth washers, wool scourers, soaping and wetting machines. These machines are well known all over the country, and are in woolen mills from Maine to California. A specialty is also made in this connection of the friction clutch pulleys and cut-off couplings invented and patented by James E. Hunter, which have an extensive sale. Their plant is thoroughly equipped throughout with the best and most improved machinery for manufacturing their specialties,

the shafting being made by the Brightman patent process, which enables them to turn shafts of extraordinary length with the utmost uniformity of size and finish. The excellence of the products of the establishment is conceded in all markets, and the goods command the best prices.

This industry, in the heart of the city, is of great financial benefit to North Adams, the average number of employees being one hundred and fifty, and the annual pay roll amounting to about \$85,000. The officers of the company are: James E. Hunter, president; James D. Hunter, vice-president; H. E. Wetherbee, treasurer; H. D. Rockwell, assistant treasurer.

BARBER LEATHER COMPANY.—Mr. D. J. Barber, the senior member of this firm, bought an interest in the old established tanneries of C. H. Reed & Co., in 1872, and continued in that business until the tannery was burned in 1889. In 1891, in partnership with his sons, A. N. and F. J. Barber, he established the present company for the manufacture of russets and fancy-colored leathers, used for furniture work, pocket books, traveling bags, suit cases, and colored shoes, and fancy-leather goods. The company's tanneries are located at Reedsborough, Vt., and Greenbush, N. Y. They tan over one hundred and twenty-five sides of leather per year, and employ about one hundred hands. The concern make a specialty of imitation sealskin, morocco, pigskin, and monkey grain upon cowhide. Also leather chair-seats, and backs embossed. Mr. F. J. Barber withdrew from the firm in 1895.

W. G. CODY & Co.—This concern was established in 1865, as Cody Brothers, and became as now in 1881. The present company is composed of Messrs. W. S. Cody and S. H. Fairfield, who are among the largest shoe manufacturers of this vicinity. They employ about five hundred hands, and operate two factories— one on Ashland street, a three-story building with basement; and one on Holden street, a four-story structure, 120 x 50 feet in dimensions. The output is between 4,000 and 5,000 pairs per day of women's, misses' and children's, and men's, boys' and youths' shoes of a medium grade, and is sold to jobbers of the country.

THE BERKSHIRE HILLS SANATORIUM FOR THE TREATMENT OF CANCER.—Dr. W. E. Brown & Son (Dr. Wallace E. Brown), proprietors of this far-famed sanatorium, have earned a world-wide reputation as experts in the treatment of cancers. Dr. William E. Brown, the senior member of this firm, and discoverer of their method of treatment, known as the Escharoti method, began his experiments in 1859, operating first upon himself, he being a sufferer from a sarcomatous tumor situated in his mouth. Dr. Wallace E. Brown, the junior member of the firm, is a graduate of Bellevue Hospital Medical College of New York city.

A. L. & N. E. BARTLETT, lumber merchants, and manufacturers of spruce, hemlock, oak, chestnut and dimension lumber, mouldings, doors, sash and blinds. Their plant, located on State street, consists of a spacious yard and a mill building 180x50 feet in dimensions, equipped with most modern wood-working machinery. About fifty hands are employed.

PORTER & HANUM, building contractors.—This is the most prominent firm of builders in North Adams, and is composed of E. R. Porter, carpenter, and S. W. Hanum, mason.

T. W. RICHMOND, dealer in coal, wood, hay and straw, at No. 61 Ashland street. Mr. Richmond has been in the coal business in North Adams for twenty years.

NORTH ADAMS GAS LIGHT COMPANY, furnishing electric light, heat and power. This company was incorporated in 1864. Capital, \$50,000. Officers: H. T. Cady, president; Frank S. Richardson, treasurer and manager; E. B. Hamblen, secretary.

ADAMS.—**RENFREW MANUFACTURING Co.** was organized in 1867, with a capital

of \$100,000. The present capital is \$1,200,000. James C. Chalmers is vice-president; J. Renfrew, treasurer; and J. N. Saunderson, superintendent. The company operates six mills, and employs 900 hands, in manufacturing dress warps, Turkey red damask, and gingham. Mills are equipped in part with 23,552 rug and 10,042 mule spindles, and 1,100 gingham and 150 damask looms. Steam and water-power. Emil Kipper, 317 Broadway, New York, agent; P. Van Volkenburg & Company, New York, selling agents.

W. C. PLUNKETT & SONS.—This is the oldest mill in the vicinity, and was established in 1829 by W. C. Plunkett, who died in 1884. It is now conducted by his sons, W. B. and C. T. Plunkett. Manufacture cotton warp. 10,000 spindles.

BERKSHIRE COTTON MANUFACTURING CO. was organized in 1889, with a capital of \$500,000. Edward N. Gibbs, president; W. B. Plunkett, treasurer; C. T. Plunkett, secretary. No. 1 mill was erected in 1889, and is a four-story building, 100 x 277 feet in dimensions, and is equipped with 35,000 spindles, and 720 looms. In 1892 the capital was increased to \$950,000, and No. 2 mill was built. It is four stories high, 100 x 330 feet in dimensions, and contains 40,000 spindles, and 820 looms. In 1896 the capital was again increased, making a total of \$1,500,000, and No. 3 mill was erected. This is one of the largest cotton-mill structures in the country. It is five stories high, 440 x 116 feet, and has a wing 160 x 50 in dimensions. This enormous mill contains 80,000 spindles, and 2,120 looms. This concern are easily the largest manufacturers of fine cotton goods in the United States. Their output, which exceeds 30,000,000 yards annually, consists of fine cottons, lawns, satens, and organdies, and is disposed of to converters. 1,500 hands are employed.

L. L. BROWN PAPER CO.—This business was established in 1849 by L. L. Brown, William and Daniel Jenks, and was conducted by them until 1873, when it was incorporated as above. This company operate two mills in Adams, and employ 250 hands in manufacturing linen, ledger, and wrapping paper. They also have a small mill in West Cunningham. Five tons of ledger paper are produced daily. Officers: C. C. Jenks, president; A. B. Daniels, treasurer; C. C. Jenks, A. B. Daniels and L. L. Brown, directors. Capital, \$200,000.

PITTSFIELD.—Pittsfield's large and diversified manufacturing and business interests are well represented by the following concerns:

STANLEY ELECTRIC MANUFACTURING COMPANY.—Incorporated in 1890, with a capital of \$300,000, which in 1879 was increased to \$500,000. W. W. Gamwell, president; Henry Hine, general manager; George W. Bailey, treasurer; George H. Tucker, clerk. This company manufactures electrical apparatus for alternating currents, designed particularly for central station work, and long-distance transmission. They have a reputation as builders of very high-grade machines, and obtain from 25 per cent. to 50 per cent. more for similar appliances than competitive concerns. Their system is known as the S. K. C. system, from the initials of its inventors, William Stanley, John F. Kelly and C. C. Chesney. The plant consists of a building, 90 x 200 feet in dimensions, for large work; another, 90 x 150 feet, three stories high, for small work. Employ three hundred hands.

THE PONTOOUC WOOLEN MANUFACTURING COMPANY was chartered in 1826, and commenced operations in 1827. The incorporators were: Henry Shaw, president; George W. Campbell, clerk and treasurer; David Campbell, Jr., general agent, and Colonel Thaddeus Clapp. This is one of the oldest woolen mills in the state, and at the time of its starting with six sets of cards, was as large as any in Massachusetts. The product consists of dress-goods, cassimeres, kerseys, and blankets, and is disposed of through Cooley, Turnbull & Co., 24 Thomas street, and Hillman, Vale &

Co., 329 Broadway, New York, selling agents. The present officers are: W. R. Plunkett, president; George Humphrey, treasurer; H. A. Francis, superintendent and general manager.

S. N. & C. RUSSELL MANUFACTURING COMPANY was established in 1856, by S. N. Russell and brother. The firm was incorporated under the above style in 1885, with S. N. Russell, president, and Franklin W. Russell, treasurer. Capital, \$100,000. The product is woollens, men's wear, kerseys and carriage cloths. Seventy-two looms are operated.

WILSON & HORTON, proprietors of the Taconic Mills, established business in 1880, manufacturing suitings, beavers and cloaking. The mill is a large four-story building, 250x50 feet in dimensions, and is equipped with sixteen sets of cards. Two hundred and twenty-five hands are employed. The firm members are James Wilson and Arthur Horton. Sawyer, Blake & Bramhall and Messrs. Oelbermann, Domenick & Co., New York, agents.

PITTSFIELD MANUFACTURING COMPANY was incorporated in 1887. Mr. James O. Purnell is president and treasurer. The capital is \$15,000. The line of manufacture is woolen and merino yarns for the knitting and weaving trade. The mill is equipped with nine sets of cards and three thousand six hundred and thirty spindles. Fifty hands are employed.

A. H. RICE & Co., manufacturing sewing silks, and all kinds of silk, and mohair braids. This firm was founded in 1878, in a small way. Their business has grown to such proportions that the building now occupied by them (greatly enlarged in 1896) is 200x100 feet in dimensions and two stories high. One hundred and twenty-five hands are employed. The product of this company is a very superior quality, owing to the fact that nothing but the highest-grade stock is used. The raw silk is imported from Japan and China, and the mohair yarns from England.

O. W. ROBBINS SHOE CO.—This business was established in 1870 by O. W. Robbins and C. W. Kellog, and was incorporated in 1892 as Robbins, Kellog & Company. In January, 1895, the firm-name was changed to O. W. Robbins Shoe Company, Mr. Kellog having sold out his interest in 1894. The present officers are: O. W. Robbins, president; H. C. Collins, treasurer; N. A. Mills, superintendent. Capital, \$100,000. 250 hands are employed in making about 1,800 pairs daily of men's, boys' and youths' medium-grade shoes.

THE CHESHIRE SHOE MANUFACTURING CO. was incorporated in 1885, with a capital of \$20,000. The first factory was in Cheshire, but, at the end of five years, having outgrown their quarters, they constructed in Pittsfield their present factory building, which is one of the most conveniently arranged and best buildings for the purpose in the country. It is built of brick, has only one floor, is 200 x 100 feet in dimensions. It has a monitor roof, and is one of the best lighted factories to be found anywhere. The line is women's medium-priced goods, of which this firm manufactures daily from 2,000 to 2,500 pairs. 150 hands are employed. R. A. Burgett, president; H. H. Wellington, treasurer; W. T. Adams, manager. Capital, now \$50,000.

THE BERKSHIRE TACK CO., incorporated in March, 1890, manufactures shoe and basket tacks of all kinds. Product sold principally direct to the manufacturers. Walter Cutting, president; W. E. Wilcox, treasurer.

THE TEELING BAKING CO.—This business was established by W. H. Teeling nearly a half century ago. In 1893 it was incorporated with a capital of \$20,000. Samuel Dodge, president; Edward B. Wilson, treasurer; Mariette Francis, clerk and secretary. The specialties of this company are crackers and biscuits of all kinds, and the product is sold in all parts of the country.

PITTSFIELD LUMBER CO., wholesale and retail dealers in lumber and builders' supplies, was incorporated in 1896, and succeeded to the business of Charles H. Smith. Officers: Chas. H. Smith, president; Geo. S. Frink, treasurer; Walter F. Hawkins, secretary. Capital, \$100,000. Operate a large two-story lumber mill, equipped with most modern machinery. Also have large lumber yard with spur tracks. Fifty men are employed.

ATHOL.—**GODDARD & MANNING.**—This firm was founded in 1888 by Messrs. H. S. Goddard and R. Manning for the manufacture of piano cases of all kinds. Mr. Manning died in 1895, and Mr. L. C. Parmenter became a member of the firm in September of the same year. The well-equipped plant consists of a main building, sixty by one hundred and twenty feet in dimensions, and three stories high, and a second building, thirty by eighty feet, and two stories high. The product of this firm is sold to piano manufacturers all over the country, but the major portion of the output goes to Chicago. From fifty to sixty hands are employed.

GEORGE S. BREWER began in 1879 to manufacture house finish window frames, mouldings, boxes, and to deal in lumber and shingles. Mr. Brewer's business extends all over New England, and he makes a specialty of contracting with persons requiring heavy packing cases, shoe-boxes, etc. He has a well-equipped factory building, forty by fifty feet in dimensions, two stories in height, and obtains sufficient power from a thirty horse-power gasoline engine, or a water wheel of the same capacity.

MILLERS RIVER MANUFACTURING CO.—This concern was founded in 1860 as Johnson, Hill & Co., and incorporated three years later under the above style, with J. C. Hill, president; C. C. Bassett, treasurer; and George T. Johnson, agent and general manager. The product of this company consists of woolen blankets and satinet, and the output is sold through jobbers and commission houses. About sixty to seventy hands are employed, and one thousand four hundred and forty spindles, and twenty-three broad and twenty narrow looms are operated. Six sets of cards. This firm was the pioneer of the woolen industry in Athol. The present officers are: S. S. Tower, president; W. G. Johnson, treasurer and general manager. Mr. George T. Johnson held position as treasurer and general manager to time of his death in 1892, when he was succeeded by his son, the present incumbent.

ANDREW J. HAMILTON, proprietor of the Athol Life and Fire Insurance Agency, represents leading fire and life insurance companies. This agency was established in 1865. Mr. Hamilton entered the business in 1871, and became proprietor in 1883.

LUCIEN LORD, real-estate dealer and owner of the Academy of Music block and the Pequoig block.

MILLERS RIVER NATIONAL BANK.—Capital stock, \$150,000. Officers: Alpheus Harding, president; George D. Bates, vice-president; W. D. Lucy, cashier.

THE L. S. STARRETT CO.—For detailed account of this world-famed concern, see Mr. L. S. Starrett's biography elsewhere in this work.

GREENFIELD.—**EMIL WEISSBROD & SONS.**—Mr. Emil Weissbrod, the founder of this firm, is a native of Saxony. He came to this country in his youth to earn a living as an accountant, but, not proving successful, he came to Franklin county, Mass., to work for a manufacturer, making use of the trade he had learned in New York, that of a pocket-book maker. In 1870, with less than \$100 he began manufacturing pocket-books on his own account. Going to Boston to solicit orders from dealers, he would return to Montague to make up the goods, aided only by his wife. In a few months his business required the employment of a few girls, and after a while he purchased an old school-house of the town, converting it into both a fac-

tory and his residence. In 1887 he purchased the county jail property on Hope street, in Greenfield, where he still remains.

His two sons, Carl J. and Willis H. Weissbrod, became associated with him in 1890, under the style of Emil Weissbrod & Sons. They employ about fifty hands in making leather pocket and bill-books of a medium and fine grade. They also do a large business in advertising novelties, such as card-cases, memorandum-books, pocket-books, etc.

A. F. TOWLE AND SON CO., silversmiths, manufacturers of sterling and plate silverware of every description. This business was established in 1855 in Newburyport, and latterly incorporated. In 1892 the business was removed to Greenfield, where it ranks as one of the largest and most important industries of the town. Officers: R. N. Oakman, Jr., president; George E. Rogers, treasurer; E. D. Severns, superintendent. Capital, \$200,000. About one hundred and twenty-five hands are employed. See biography of R. N. Oakman, Jr., elsewhere in this work.

THE FRANKLIN COUNTY LUMBER CO. was incorporated in 1893 with a capital of \$25,000, and W. E. Demond, president, and W. B. Gaines, treasurer. Mr. Gaines became proprietor, in 1893, of the lumber business established by T. W. Austin & Co., and incorporated the business under the style of the Franklin County Lumber Company. In 1896 he bought the paint and oil business of A. D. Minor, and combined it with his lumber business, and in 1897 the business of M. J. Farr was purchased, making the Franklin County Lumber Company the only lumber firm in Greenfield. Mr. Farr now has charge of the retail lumber department for the company. Recent enlargements have more than trebled the capacity of their factory. This company are now wholesale and retail dealers in lumber and paints, windows, doors, blinds, glass, wall-papers, window-shades, etc., etc.

GOODELL, SON & CO.—This firm was established in 1897 for the manufacture of light hardware.

GREENFIELD AND TURNER'S FALLS STREET RAILROAD CO.—Capital \$100,000. Officers: Frank E. Lowe, president; Charles E. Dresser, treasurer; H. C. Garfield, superintendent. In addition to the above the board of directors consists of W. S. Cutler, E. A. Hall, A. S. Patten, of Greenfield, and C. E. Hudson and W. S. Breed, of Leominster.

FIRST NATIONAL BANK.—Organized in 1864. Capital, \$200,000. President, Joseph W. Stevens; cashier, John E. Donavan.

FRANKLIN COUNTY NATIONAL BANK.—Organized 1865. Capital, \$200,000. President, J. H. Sanderson; cashier, Charles H. Keith.

PACKARD NATIONAL BANK.—Incorporated 1875. Capital, \$100,000. Cashier, H. D. Packard.

SHELBURNE FALLS.—LAMSON & GOODNOW MANUFACTURING COMPANY.—Organized in 1846. Capital, \$382,000. Manufacturers of table, druggists' and butchers' cutlery.

WESTFIELD.—THE H. B. SMITH CO., manufacturers of steam and water-heating apparatus and Gold's hygeian heater. Office, Main street. Foundries, 57 to 63 Main street, and North Elm street.

UNITED STATES WHIP CO.—This concern, organized in 1893, with a capital of \$2,200,000, is a combination of about twelve whip companies, with factories in different sections of the country. This company manufactures seventy-five per cent. to eighty per cent. of the whip production of the United States, and a large export business is done. Officers: L. R. Norton, president; Lewis Parker, treasurer; Ira Miller, general manager.

BAY STATE CIGAR CO. was established about 1888. The firm members are J. H. Ashley, T. R. Hennessey and G. M. Ashley. This company makes a specialty of ten-cent goods, of which they manufacture five hundred thousand per year. They are proprietors of the "Hennessey" and "Oracle" brands.

THE TOWNE FULLER CO., manufacturers of fine cigars exclusively for the jobbing trade. This concern, incorporated in 1891, is one of the largest of the many cigarmakers of this vicinity, employing about one hundred and twenty-five hands, and their output is very large. George W. Reed, president; R. K. Fuller, vice-president; R. W. Richards, treasurer.

EASTERN CIGAR CO., manufacturers and dealers in seed and Havana cigars. Geo. Bowers and Geo. R. Bowers compose this firm.

T. KNEIL & SON, dealers in coal, wood and charcoal.

NEW ENGLAND WHIP CO., manufacturing whips, lashes, etc.

CHAPTER CXLVIII.

INDUSTRIAL—Continued.



THOUGH not without other industries of note and magnitude, Lynn's fame rests chiefly upon the immensity of its shoe-manufacturing interests. Wherever shoes are worn Lynn is known as one of the largest producers of footwear in the world. Following are mentioned a few leading shoe-manufacturing concerns, and also several representatives of Lynn's other prominent industries and business pursuits.

JAMES PHELAN & SONS.—In 1860 Mr. James Phelan began making shoes for himself on the bench, going into Boston every Saturday to sell them. From this very humble beginning one of the largest firms in Lynn has developed. After many removals made necessary from time to time by the ever-increasing demands of the trade, this firm moved into their present large brick factory in the summer of 1893. This building, erected and owned by James Phelan & Sons, is five stories high, with a basement, and it is eighty by eighty feet in dimensions. It is equipped throughout with the most improved machinery, and has a capacity of over three thousand pairs of shoes per day. The product, which is sold to jobbers principally, with a few special lines disposed of direct to large retailers, consists of ladies' fine shoes and Oxfords, in addition to which they carry on the business formerly operated by A. H. Atherton & Co., who were noted as manufacturers of misses' and children's shoes. Since 1890 Mr. James Phelan has relinquished the active management of the business to his sons, E. J. and John A. Phelan.

THOMAS F. CALLAHAN began business alone in December, 1896, for the manufacturing of ladies', misses' and children's spring-heel shoes. His factory, located at 208-210 Market street, has a capacity of one thousand pairs per day, and two hundred employees. Product sold to jobbers of the country.

HARNEY BROTHERS.—This business was established in 1885 on Washington street, and after several removals made necessary by their growing business, they built a large four-story factory on Alley street, which they occupied in 1892. This factory is one of the largest in Essex county. It has a floor area of over fifty five thousand square feet, and a capacity of six thousand pairs per day. Messrs. Harney

manufacture fine and medium grades of ladies' Goodyear welts and turns for the jobbing and retail trade. They employ about six hundred hands in the factory, and a half dozen salesmen, who cover the country with their output. The firm members are: Patrick J. Harney, manager; T. F., H. J., J. W., and Peter J. Harney.

JOHN B. RENTON & Co.—This business was established in 1883 by Mr. John B. Renton, who commenced business in a very small way, employing but ten or fifteen men. From the first the business increased with a rapidity so great that it has always been with the greatest difficulty that Mr. Renton has kept pace with the constantly growing demands for his product. After many removals made imperative from the necessity for more room, the firm moved into a large plant on Harrison court in the beginning of 1896. This building, erected by Mr. Renton in 1895, is two hundred and eighteen feet long, from thirty to fifty-nine feet wide, and has six stores and a basement. Five hundred hands are employed in making from seventy-five to one hundred and twenty-five thousand pairs of heels per day, which is larger than the combined production of any six or eight other manufacturers of heels.

D. A. DONAVAN & Co.—Messrs. D. A. and M. F. Donovan began the manufacture of shoes on a very small scale in 1880, under the present firm style. They started on Spring street in one room, 12x15 feet, with a capacity of only a few pairs per week. Successful from the beginning they have gradually but rapidly enlarged their business until now, after many removals, they occupy a large six-story building at 47-53 Willow street. Their present plant has a floor area of 45,000 square feet, and 350 hands are employed in making their large production of ladies', misses' and children's hand and machine-sewed boots and shoes. Their capacity is about 3,000 pairs per day.

LUDDY & CURRIER.—Messrs. J. Luddy and W. M. Currier succeeded in 1894 to Leary & Luddy, who were established in 1889. Their factory, located at the corner of Willow and Oxford streets, has a floor area of 32,000 square feet. Their product, consisting of ladies', misses' and children's medium, is disposed of through jobbers and also directly to large retail stores. Two hundred and fifty hands are employed. Capacity about 2,100 pairs per day.

A. F. SMITH established his business in 1865. For an extended account of its growth see Mr. Smith's biography elsewhere in this work. The present factory building was built in 1892. It is of brick, four stories high, and 210x60 feet in dimensions. The product, consisting of about 30,000 pairs of ladies' and misses' fine shoes per day, is sold to the New England jobbers and western retail trade. About 300 hands are employed.

WEBER LEATHER CO.—This business was established in 1876 by Mr. N. Weber. In 1891 the firm became N. Weber & Son, and in May, 1896, it was incorporated under the above name with N. Weber, president; N. Weber, Jr., treasurer and clerk. The line of manufacture is glazed kid for the shoe trade. Capacity 200 dozens per day, and 200 employees. The product is sold to dealers and shoe manufacturers.

WILLIAMS, CLARK & Co.—This firm, composed of W. W. Williams and Sewall Clark, succeeded in 1891 to the firm of Williams, Plant & Company, who were established in 1887. This concern is a large one, occupying a factory building six stories in height, located at the corner of Washington and Liberty streets and Central avenue, and with a floor area of about 47,000 square feet. About 300 hands are employed in the manufacture of their output of 2,500 pairs daily of ladies machine-sewed and welt shoes of a medium grade.

THOS. CORCORAN & SONS.—This firm, composed of Thomas Corcoran, and Joseph J. and Timothy F. Corcoran, was established December, 1896, when Mr.

Corcoran dissolved partnership with Mr. Thomas F. Callahan, with whom he had been for about eleven years. Mr. Corcoran is a man of large experience as a shoe manufacturer, having acted as head of departments for years before beginning for himself. His son, Joseph Corcoran, is also a man well versed in the shoe business. He was for seven years foreman of the cutting-room of Corcoran & Callahan. The present firm make a specialty of ladies', misses' and children's spring heel shoes of a medium grade.

P. LENNOX & CO.—The members of this firm are Patrick Lennox and his son, J. T. Lennox. The business was established in 1852 by Mr. Patrick Lennox. The product of this company is glazed kid for the boot and shoe trade. In 1888 the factory was removed from Lynn to Peabody, where about 300 hands are employed. Their capacity is between 300 to 400 dozen per day.

P. B. MAGRANE, proprietor of Lynn's greatest department store, commenced business in 1876 on Market street with a capital of only \$200. His first store-room was twenty-three feet deep by fifteen feet front. From the beginning he was successful, and his original store was enlarged in all five times; and, the room thus obtained shortly proving inadequate, he removed in 1890 to Nos. 133 to 149 Market street, and in 1893 he enlarged this store, by more than doubling its frontage. The main store-room is now 200 by 106 feet in dimensions, and in all there are 57,000 square feet of floor space. The store has more than thirty departments, requiring about ninety assistants, and is fitted with a private electric light plant, and well protected by automatic alarm and sprinkler systems.

Q. A. TOWNS CO.—This business was founded by Mr. Q. A. Towns nearly thirty years ago, and from a small beginning it has grown into a large and constantly increasing business. The product consists of heels and rands, and is sold largely to shoe manufacturers of New York state. Mr. Towns continued as sole proprietor of the business until his death in January, 1894, when Messrs. Jay Q. and James T. Farwell, both of whom had been with Mr. Towns for about twenty years, became its proprietors. They employ about forty hands in their factory.

LYDIA E. PINKHAM MEDICINE CO.—This concern, known all over the world as the manufacturers of the Lydia E. Pinkham's Vegetable Compound, holds a foremost place among the largest advertisers and manufacturers of proprietary medicines in the United States. This now mammoth establishment had its incipency in 1876 when Mrs. Lydia E. Pinkham, assisted by her three sons and daughter, began to brew her famous compound upon her kitchen stove. The establishment has been enlarged from time to time, and the latest addition is a large four-story brick laboratory, which was built in 1896. In addition there are large store and warehouses, and commodious and elegantly fitted offices. Over 7,000 bottles of Vegetable Compound are put up and shipped every day. This remedy is also prepared in pill and lozenger form. Besides the "Compound" this company manufactures a liver pill, blood purifier, and sanative wash, each of which is gaining for itself a reputation similar to that so long possessed by the Vegetable Compound. The fact that \$1,000 worth of one cent postage stamps are used every week in the mailing department of advertising matter will give the reader an idea of the magnitude of the business done by this company. Mrs. Pinkham died in 1883, and the business became the property of her surviving children, Charles H. Pinkham and Mrs. A. P. Gove, who had the concern incorporated in 1882. Mr. Charles H. Pinkham is the president and manager of the company.

HASTINGS & SONS PUBLISHING COMPANY.—This concern publishes the daily *Evening Item*, the *Weekly Item*, *Saugus News* (a weekly), and the *Swampscott Enter-*

prise (a weekly). Mr. Horace N. Hastings began publishing the *Weekly Item* in January, 1876, and on December 8, 1877, the first number of the daily *Evening Item* appeared. This was published by Hastings & Sons, Horace N. Hastings and Henry N., Charles H. and Wilmot R. Hastings. The daily was originally a one-cent paper, but in 1886 the price was increased to two cents. It has a circulation of 13,000, which is confined almost exclusively to Lynn. The weekly has a circulation of about 1500. Subscription, \$1.50 annually. In 1892 the company was incorporated as Hastings & Sons Publishing Company, with Horace N. Hastings, president; Charles H. Hastings, treasurer; and Wilmot R. Hastings, vice president and clerk.

LIBBY & ESTES, sole manufacturers and dealers in hard bottom finish for ladies' boots and shoes, etc., and burnish stains for edges, heels and shanks, were established about eighteen years ago. Messrs. J. P. Libby and Benjamin F. Estes comprise the firm.

AUGUSTUS J. HOITT, No. 17 Exchange street, ticket broker, notary public, real-estate dealer, and pension attorney.

E. B. HAYES, wholesale agent for newspapers and periodicals, Exchange street.

WALTER E. BLANCHARD & CO., shoe manufacturers, 460 Union street.

THOMSON ELECTRIC WELDING COMPANY, manufacturers of electric welding apparatus.

SALEM.—Salem is an important manufacturing centre, having, in addition to its immense leather tanning interests, for which it has always been noted, other industries covering a large field of manufacturing pursuits, the value of whose output even exceeds that of the tanneries.

These are steam cotton mills that operate 160,000 spindles, and give employment to 1500 hands; extensive and finely equipped shoe factories, large plants for the manufacture of illuminating, lubricating and curriers' oils; spacious lead works, and chemical works, and many other manufacturing establishments. Among the leading concerns of Salem are the following:

THE M. ROBSON LEATHER COMPANY.—This business was established in 1866, and incorporated in 1894. It is one of the leading leather-manufacturing houses of New England. Their product is upper leather of every description. The firm operate three extensive plants—two at Salem and one at Manistee, Mich.,—which give employment to about 550 hands, and have an annual capacity of 400,000 hides. A. F. Poor, president; M. Robson, treasurer.

J. L. AUSTIN has a large factory, employing about fifty hands, for the currying of split, wax and kip leathers. He began business in 1876. The capacity of his factory is 1800 sides and splits per week, or six to eight tons of splits alone.

PETER SIM & SONS, manufacturers of morocco, kid and pebble, goat and sheep leather of every description. The business was founded in 1873 by Mr. Peter Sim, and the present firm was formed in 1881. Employment is given to one hundred and fifty hands, and the product is about four hundred skins per day. The firm is composed of Mr. Peter Sim and his sons, Messrs. Robert J., Francis D. and Peter A. Sim.

TREADWELL BROTHERS & CLARK are manufacturers of and dealers in glazed and dull dongola. For an account of this old-established firm, see biography of Mr. N. R. Treadwell elsewhere in this work. The present firm is composed of F. R. Treadwell, H. D. Treadwell, and Clarence S. Clark.

LOCKE REGULATOR CO. are patentees and manufacturers of steam appliances in general, and superior steam damper regulators in particular. The firm was established in 1871. The members are Messrs. N. C. and A. N. Locke.

SALEM FOUNDRY AND MACHINE SHOP, Charles F. Curwen, proprietor, are

manufacturers of special machinery for cotton and woolen mills. Mr. Curwen is also treasurer of the Dinsmore Manufacturing Company, who make a specialty of mill sewing-machines and supplies.

JOHN ROOD & Co. was established in 1885 by Mr. John Rood, for the manufacture of the Rood Shaving Machine for shaving goat, sheep and calf skins.

SMART & SPENCER are manufacturers of all kinds of brass goods, and make a specialty of the "Spencer" steam damper regulator. The business was founded about twenty-five years ago by Messrs. Smith and Smart. Mr. John E. Spencer was admitted to the firm in 1885, and upon Mr. Smith's retirement in 1891, the firm-name became as now.

HARDY BROTHERS are dealers in doors, windows, blinds, window frames, etc., at Nos. 9 and 11 Washington street, Salem. The firm members are: Messrs. W. W. and Charles G. Hardy.

B. J. MULLIGAN began business about twenty years ago for the manufacture of moulded counters, heels, cut top lifts, etc. He now operates two factories in Salem, and gives employment to about one hundred and thirty hands.

WAKEFIELD.—L. B. EVANS' SON, shoe manufacturers.

WAKEFIELD RATTAN COMPANY, manufacturers of rattan and reed furniture, children's carriages, kurrachee rugs, matting, mats, baskets, chair cane, reeds, etc. Incorporated about 1873. The present officers are Temple R. Fay, president, and Charles H. Lang, Jr., treasurer.

WINSHIP, BOIT & Co.—This firm, proprietors of the Harvard Knitting Mill, is composed of Mr. Charles N. Winship and Miss Elizabeth E. Boit, and was established in 1888 for the manufacture of ladies' underwear. In 1889 a larger mill capacity was required, and they moved to Wakefield's block, Wakefield, occupying the entire third floor. About forty hands were employed, and the knitting machines numbered ten and the sewing machines five. Later the entire fourth floor, the old Grand Army Hall in the second floor, and a portion of the basement were leased. The business at the present writing includes the manufacture of infants', children's, ladies' and men's underwear, made in cotton and cotton worsted. About one hundred and sixty young women are employed in the factory, and from two hundred to two hundred and fifty on work taken outside. The knitting machines now number eighty-four and the sewing machines seventy. The products of the mill are taken by a large commission house in New York, who dispose of them direct to the retailers. This company do a business now of about \$300,000 per year.

DANVERS.—The manufacturing interests of Danvers cover a wide and varied field of industrial enterprise. Among the many industries represented here are extensive establishments for the manufacture of leather, shoes, iron, paper and wooden boxes, bricks and carpets.

BERNARD, FRIEDMAN & Co. have a large plant here for the manufacture of upper leather, calf and kangaroo skins. The business was established at Peabody in 1889, and removed to Danvers in October, 1890. Employment is given to about one hundred and sixty hands, and their production is two hundred dozen hides per day. The firm is composed of Albert Bernard, Max Friedman and Henry Creese.

GEO. W. BAKER, manufacturer of a medium-priced line of misses' and children's shoes, became proprietor in 1895 of the business founded by his father, D. B. Baker. The product of Mr. Baker's factory is sold to the New England and New York jobbing trade.

POPE BROTHERS (Fletcher and Isaac D. Pope) succeeded, in 1883, to the business of Calvin Putnam. They have a large lumber-yard and mill at Danversport, and carry at all times a full line of builders' materials.

WOODMAN BROS. & ROSS.—This business was established in 1838 for the manufacture of wooden boxes of every description. They now have, in addition to this department, a well-equipped paper-box plant. The firm are also dealers in hard and soft wood and kindlings, and employ about thirty hands.

ALBERT A. BATES began business at Danvers in 1886 for the manufacture of morocco. Mr. Bates dresses nothing but India-tanned goat skins. His capacity is about three hundred dozen per week.

C. C. FARWELL & Co., manufacturers of women's, misses' and children's fine boots and shoes. The firm-members are C. C. and H. G. Farwell.

BEVERLY.—**M. E. Grey**, carpenter and builder. The proprietor of this business is a native of Bucksport, Me., and came to Beverly in November, 1883. After erecting several buildings in company with his father, he worked with others in the building trade until November, 1888, when he went into business for himself. He was burned out in November, 1891, but in a very short time erected a large store-house and continued operations. Mr. Grey has a mill located at 52 River street, equipped with an elaborate plant of the most improved wood-working machinery, driven by a forty-horse power engine. Employment is given to from fifty to seventy-five hands.

PEABODY, one of the most enterprising towns of Essex county, was originally a part of the old town of Salem, and remained such until its incorporation in the district of Danvers in 1752. It was separated from Danvers under the name of South Danvers in 1855, but thirteen years later it was renamed in honor of the great philanthropist George Peabody, who was born in the town.

Almost from the first the staple industry of Peabody has been the manufacture of sheep-leather and morocco; and by virtue of the quality and quantity of its special product it justly claims to be one of the foremost of the representative leather towns of the United States.

The business of tanning in Peabody is said to have been begun about 1739 by Joseph Southwick, a Quaker, who used half hogsheads for vats; and from this humble beginning the industry has grown to almost gigantic proportions, so large that the aggregate capacity of the sheep-leather and morocco establishments of Peabody exceeds the entire product of sheep pelts in the United States. The concern of A. C. Lawrence & Co. is the greatest manufacturer of sheep-leather in this country. This company is the result of a combination on January 1, 1894, of the firms of H. A. Southwick and Allen, Field & Lawrence.

For a year after their organization the firm continued the manufacturing and selling of their own output, consisting of a full line of sheep-leather, including glove-kid and white leather, of which they are the only manufacturers in New England. At the end of this time they became the sole selling agents for the entire production of sheep pelts of Swift & Co. This concern gives employment to about three hundred and twenty-five hands, and has a daily capacity of twelve hundred dozen skins. About sixty-five per cent. of the pelts of native-killed sheep are finished at this establishment.

A. B. CLARK is the largest individual manufacturer of sheep-leather in the United States. Born in Edinburgh, Scotland, in 1842, Mr. Clark was brought to this country while yet an infant by his parents, who emigrated to New Jersey. Mr. Clark's father was an old-time morocco dresser, and his sons naturally took up the trade of the father. Alexander was apprenticed at an early age, and was recognized as a skilled workman before he had attained his majority. In 1872 he commenced business for himself at Peabody, in a small building, whose capacity was six hun-

dred skins per week. His business has steadily increased so that his main factory building is about five hundred feet long and seven stories high. In addition to this immense establishment Mr. Clark has a large factory at Tapleyville, and is at present about to commence the erection of large additions to his main plant. These factories have a capacity of about twelve thousand skins per day. Mr. Clark makes a specialty of colored sheep and goat skins of every possible shade, and the excellence of his product is recognized in all the centres of trade throughout the country.

C. J. LARRABEE commenced business in 1885 for the manufacture of sheep leather, and makes a specialty of glazed Napa. He has a capacity of one hundred and seventy-five dozens a day and employs about fifty assistants.

EDW. EAGAN & SONS are successors to Eagan & Kelly, who established in 1860 a business for the manufacture of goat and sheep skins. The firm became as at present in 1893. The capacity of the factory is about twelve hundred skins per day.

LENDELL W. FOAN, in July, 1896, succeeded his father, George Foan, who began the business about twenty years ago for the manufacture of black, white and glazed Napas. Mr. Foan also manufactures dongola, goat and sheep. He has a capacity of two hundred dozens a day.

THOMAS H. O'SHEA is a manufacturer of bright and dull dongola. He has two factories, with a daily capacity of three hundred and fifty dozens and employs about one hundred and ten hands.

J. A. LORD, tanner and currier of wax, kip and split leather, employs about one hundred hands and has a capacity of one thousand hides per week. This business was established in 1836 by J. A. Lord, Sr., and is consequently one of the oldest tanneries in Peabody under one management.

L. B. SOUTHWICK & Co.—This firm began business about fifteen years ago for the manufacture of sheep leather, and make a specialty of embossed leather. Their capacity is one hundred and fifty dozens a day.

R. G. NELSON & SON.—This business was founded in 1849 by Messrs. Merrill & Nelson, and in 1890 came under the control of the present firm, which is composed of Messrs. R. G. and G. R. Nelson. They tan and curry satin, calf, oak, wax and split leather (satin a specialty). Their capacity is about six hundred hides per day, and they give employment to about sixty assistants.

GEORGE CLERK, manufacturer of white and colored roans and skivers, was born in England, but came to America at an early age. In 1867 he began business operations for himself in Peabody, and in a few years had made a name for himself, becoming noted for the excellence of his products. Mr. Clerk makes a specialty of superior button-fly stock. He employs about sixty men.

P. R. GILL established his business in 1872 and has met with a large degree of success. He manufactures a complete line of sheep leather in fancy colors and has about forty employees.

J. S. CREHORE & Co. began business in Peabody in 1889 as curriers and manufacturers of all kinds of shoe stock. The firm members are J. S. and Harry Crehore. They employ from twenty-five to forty men.

GEORGE A. WINCHESTER is the proprietor of one of the oldest leather manufacturing factories in Peabody. He succeeded Pinder & Winchester, who were the successors of Pinder & Brown, the founders of the business. Mr. Winchester makes a specialty of wax and kip leathers, and has a capacity of two thousand hides per week, employing some seventy-five assistants.

The manufacture of glue is a representative industry of Peabody, there being four large factories in town. Among the most important are to be mentioned the plant of the American Glue Company and the Upton Glue Works.

Of late years a large variety of manufactures, covering many different fields of industry, have grown up and prospered in Peabody. Foremost among them are the establishments of the following firms: George W. Pepper, whose father began the business in 1830, is proprietor of one of the oldest confectionery manufacturing concerns in the country, and is known in all parts of the United States as the originator and sole producer of the famous "Old Gibraltars" and "Black Jack" confections; John Boyle & Co. were established in 1884 for the manufacture of leather machinery and general mechanical repairing.

THE VAUGHN MACHINE COMPANY was incorporated in 1883, by George C. Vaughn, president; Charles P. Vaughn, vice-president, and Ira Vaughn, treasurer and general manager, for the manufacture of hide and leather-working machinery. The capital stock is \$50,000.

THE PARMENTER & POLSEY FERTILIZER CO. are manufacturers of all kinds of fertilizers and renderers of tallow, grease and bones. They also manufacture soaps. The firm is composed of J. W. Parmenter, C. M. Polsey and J. M. Butman. Messrs. Parmenter and Polsey succeeded to the business of A. L. Ames in 1889, and Mr. Butman was admitted to the firm in July, 1896.

The establishment of the NEWELL & KNOWLTON EXTRACTING WORKS is an illustration of what may be done in the way of utilizing waste material, and it is intimately connected with Peabody's representative industry, for the product of these works is largely utilized in the manufacture and dressing of leather. The concern makes a business of extracting oil from sheep leather of all descriptions and upper-leather stock. The business was founded in 1884, and was incorporated in 1893 with a capital stock of \$30,000. F. F. Newell, president; J. F. Knowlton, treasurer. They have a branch at Rowley, Mass. The trade interests of Peabody are by no means unimportant, and the inducements offered by representative establishments are such as to cause the people to do most of their buying at home. Mr. J. B. Thomas does a large wholesale meat and provision business, and is interested in several other important enterprises besides. He is the proprietor of an extensive wool-picking establishment on Foster street, which is ably superintended by Mr. C. G. Mackintosh, and also a partner in the firm of L. B. Southwick & Co.

PUTNAM & MURPHY, dealers in light and heavy hardware of all descriptions, are substantial and respected members of Peabody's business community.

GEORGE W. LEE is a manufacturer of cork and woolen soles. This business was established in 1850.

WOBURN.—J. B. CRANE & Co., tanners and curriers. This business was established in 1854 by John B. Crane as sole proprietor. Upon the admission of a partner, in 1876, the firm became, as at present, J. B. Crane & Co. In 1886 Mr. Crane dissolved partnership, and has continued the business alone since that date. For the past ten years Mr. Crane has shipped the entire production of his extensive plant to England, France, Germany, Russia, Turkey, Egypt, India, and in fact to all parts of the world.

JAMES ROBERTSON began business in Woburn in 1893 for the manufacture of patent, enamel and russet leathers.

E. CUMMINGS & Co.—This business was founded in 1856, and is one of the largest tanning and currying establishments in Woburn. Their capacity is seven hundred sides and splits per day. Eustis Cummings and W. H. Bowers compose the present firm.

W. P. FOX & SON.—This is one of the oldest establishments of Woburn. The business was founded by Warren Fox, father of W. P. Fox, about seventy years ago.

Mr. W. P. Fox became proprietor of the business twenty years ago, and upon the admission of his son, seven or eight years later, the firm became, as at present, W. P. Fox & Son.

J. B. MURRAY & Co., tanners and curriers, 63 Broad Street.

Other large tanning and currying establishments are Middlesex Leather Company and James Skinner Leather Company.

BEGGS & COBB are foremost among the many large tanning and currying concerns of Eastern Massachusetts. They have two extensive tanneries located at Woburn and Winchester, and have a capacity of eight hundred hides a day. This business was established in 1881 by the present members of the firm, William Beggs and Elisha W. Cobb. They employ about four hundred hands.

GEO. A. SIMONDS & Co., SHOE STOCK MANUFACTURERS.—This firm, manufacturers of and dealers in heels, inner soles, bellies, roundings, splits, shoulders, stiffes, trimmings, harness, scraps, etc., was established in 1879 by Geo. A. Simonds under the present name.

T. CALNAN, successors to P. Calnan & Sons, manufacturers of and dealers in sheet heeling, inner soles, heels and all kinds of pasted stock. Business founded in 1865.

STONEHAM.—WILLIAM TIDD & Co. is the oldest manufacturing concern in Stoneham. It was established in 1840, and for twenty-two years was known as Tidd & Bloomer's Leather Manufactory. In 1862 the firm-name became as at present, William Tidd & Co. The members of the firm are Charles W. Tidd, William T. Brown and Henry A. Locke. In addition to the extensive Stoneham plant they have a tannery at Merrill, Wis.

THE E. L. PATCH Co.—This firm was incorporated in December, 1888, and commenced active business operations in May, 1889, for the manufacture of a full line of pharmaceutical products, fluid extracts, solid extracts, percolation powders, assayed powders, medicinal lozenges, tablets and tablet triturates, gelatine coated pills, sachet powders, elixirs, syrups, chemical solutions, granular effervescent salts, scale salts of iron and purified chemicals. This house is one of the largest manufacturers of chemicals and drugs in New England. The officers of the company are: President, E. L. Patch; vice-president, Geo. L. Roskell; secretary, Henry Canning; treasurer, Hon. Onslow Gilmore; directors, A. H. Cowdrey, M.D., Geo. G. Hutchins and C. E. Dotey.

W. P. FLETCHER.—Mr. Fletcher commenced the manufacture of paper boxes in Stoneham fifteen or sixteen years ago, and has conducted a successful and rapidly-increasing business.

L. V. COLAHAN commenced in 1890 the manufacture of a line of misses' and children's and boys' and youths' shoes.

F. B. JENKINS & Co.—Mr. Jenkins began business about eighteen years ago as a partner in the firm of Vinton & Jenkins. Upon the withdrawal of Mr. Vinton the firm-name became F. B. Jenkins & Co. in 1892. The members are F. B. Jenkins, E. M. Waitt and E. C. Jenkins.

E. A. VINTON SHOE Co.—Mr. Vinton, sole proprietor, established this business in 1890.

L. B. BENTON established his business in 1876, and is one of the oldest shoe manufacturers in Stoneham.

HENRY BOYCE & SON, manufacturers of taps, inner soles, heels and stiffenings; moulded counters and springs a specialty. This business was established in 1880 by Mr. Henry Boyce. His son, Mr. Harry P. Boyce, is now a member of the firm.

P. COGAN & SON.—This business was founded in 1876 by Mr. P. Cogan. His

son, B. H. Cogan, became a member of the firm about ten years ago. Upon the death of Mr. P. Cogan, in February, 1893, his two sons, B. H. and James Cogan, became the firm members, and have since conducted the business, retaining, however, the firm-name of P. Cogan & Son.

S. W. KIMBALL commenced business alone about thirteen years ago, after a number of years of partnership in Lynn and Stoneham. Since the death of Mr. Kimball, December 31, 1890, his wife, Mrs. S. M. Kimball, has successfully conducted this industry.

HAMILTON HAY commenced business here in 1870, and is the oldest shoe manufacturer in Stoneham.

THOS. H. JONES, after several years of partnership, commenced business alone in 1893, and is the proprietor of one of the largest shoe factories in Stoneham.

RUSSELL COUNTER CO. was incorporated in 1887, with L. D. Russell, president, and W. H. Russell, treasurer. This business was founded in 1865 by L. B. Russell. The corporation is now the largest manufacturer of shoe-counters in the world, two hundred and sixty hands being employed in their making.

A. E. MANN & Co. are the largest manufacturers of boots and shoes in Stoneham. This business had its origin in 1879 as Sanborn & Mann. In 1891 Mr. Arthur E. Mann became the sole proprietor, and has continued the business under the present firm-name, A. E. Mann & Company. Mr. Mann employs about 500 hands, and his factory has a capacity of 6,000 pairs a day. In addition to his Stoneham plant, he has, through contract with the state, the shoe factory of the Vermont penitentiary at Windsor, with a capacity of 3,000 pairs a day.

THE READY-MADE CLOTHING INDUSTRY.*—The ready-made clothing industry ranks among the very first in the great, important and indispensable factors of civilization. Second to food itself is human raiment, and no one thing enters more into the thoughts of men (to say nothing of women), than a covering for the body that shall clothe becomingly and present in all the walks of life "a well dressed gentleman."

Wool has the primary position in the history of textile fabrics and is of the greatest antiquity, and in all the record of history, dealing with the industries of earliest civilization, we find it in a foremost position.

Some idea of the growth of the wool industry, having as its incentive the progress of the clothing interests, may be had from the fact that in 1794 there were only five hundred and twenty-five sheep in New South Wales, while in the spring of 1888 there were ninety-six and one-half million in the Australian colonies. At the present day the United Kingdom, the Australian colonies and the Cape together own about one hundred and fifteen million sheep, representing over six hundred million pounds of raw wool.

The ancient Spanish proverb, "Sheep have golden feet, and wherever the print of their footsteps are seen, the land is turned into gold" has the spirit of prophecy indeed, and compiling the figures obtained from foreign countries, the total is about one hundred and seventy-two million sheep, while in 1885 the United States possessed about forty-nine million.

The Argentine Republic is a good producer of sheep, and it has been foretold that wool may some day be even cheaper than cotton, although the cost of manufacture into fabrics must always be greater.

From the earliest records we find this raw material fulfilling its purpose in the

* By A. Shuman.

work of clothing mankind, and it has been reserved for these later times to give it the full development which embraces pastoral productiveness on the one hand and the highest limits of mechanical ingenuity on the other.

Burnley says, "The beginning of the textile arts lies hidden in the impenetrable mists of the pre-historic times." When or in what manner wool was first used as a material for clothing can never be known. Such evidence as we possess and such deductions as we are enabled to draw therefrom, clearly show that it was the first fibrous substance utilized by man for the covering of his body. It is an easy flight of the imagination to picture the primitive people roaming with their flocks and herds amidst the luxuriant valleys of antediluvian days, and as necessity arose, converting the skins of slain animals into garments. The fleece of the sheep would require such little preparation to adapt it to the first rude purposes of clothing that it is reasonable to suppose it would have the first claim in this connection upon man's attention. It is a more difficult matter to conjure up any likely conception of the methods that were originally employed of manufacturing wool into cloth.

It has been said that nature supplies suggestions to man in all his inventive aspirations, and it is a pleasing fancy to think that the spider, the earliest of all spinners and weavers, may have conveyed to the mind of some reflective shepherd of ancient days the first notion of a woven fabric.

In the ninth chapter of Genesis it says that "when Noah, overcome with wine, lay uncovered in his tent, his two sons took a garment, and covered the nakedness of their father." This is indisputable proof that within a short period of the drying-up of the flood, when there had been no time to make new articles of this description, textile clothing was in use, and, therefore, must have been manufactured before Noah and his family entered the ark.

In the Saxon age woollen garments gradually superseded the clothing of skins; and by slow degrees, as the Saxon sovereignty became more firmly established, England began to make headway in manufactures. During the long period of the Middle Ages, extending over nearly a thousand years, from the end of the fifth century to the close of the fifteenth, the progress of the manufactures was slow, the tide of commerce, such as it was, flowed from east to west, but was a long time in reaching the shores of England.

The progress of the clothing industry in America has been from the first sure and rapid, on a par with our wonderful growth during the four hundred years since Columbus first set foot on our shores. This phenomenal industry has steadily advanced, keeping pace with the greatest enterprises of the age. Beginning with the crude and simple spinning methods of the Pilgrims, and continuing on to the loom and the machine, the cloth being cut and fashioned by the housewife and sewed together by her deft and nimble fingers, and by degrees being fashioned by more skillful artisans, until finally from the chrysalis of simplicity has emerged the perfection of modern genius,—the clothing industry has established itself as one of the important elements of commerce.

There is, indeed, but little comparison in the origin of the manufacture of clothing and its present status. As the eminent lawyer, John C. Park, once said when he rose to speak, after an eloquent orator who had preceded him, "My voice, compared to that of my friend who has just sat down, is like the grating of a barn door hinge compared to the tones of an Æolian harp." So the progress of that essentially American institution—the manufacture of clothing, "ready to put right on and wear"—has been so astonishing, that its commencement bears just as wide a distinction as its prestige of to-day.

Boston was at one time the most important centre for ready-made clothing in the country, and sent large shipments to other cities, which have since grown into manufacturers themselves—notably, Chicago, to which large quantities of made-up goods were sent from Boston in the early fifties. In fact, all of the large clothing houses at that time existing in Boston had branch houses in Chicago, from which they filled orders and shipped goods to all parts of the western and southern states.

Previous to 1850 the entire trade in this city was centred in Ann sreet (now North), Commercial and Dock square, and from Dock square to the Roxbury line there were only about three establishments on Washington street for the sale of clothing. Among the pioneer manufacturers were Andrew Carney (founder of the Carney Hospital), whose firm was styled Carney & Sleeper, afterwards succeeded by Whiting, Keogh & Gallup, Locke & Company, John Gove, Milton & Slocum (whose store was under Fanueil Hall), Isaac Fenno and John Simmons (uncle of the present proprietor of Oak Hall, who kept shop over the Quincy Market).

Gradually the movement began toward Milk, Federal, Congress and Summer streets. Step by step the styles improved. What look to us to-day as outlandish styles, gradually assumed more symmetry and consistency of make-up. A glance at a historical panorama, of which there are several in existence, depicting the changes in human garb from one epoch to another, shows the transitions much better than I can picture them in words. The baggy trousers and wasp-waisted coats, wonderful vests and impossible surtouts, have dropped into "innocuous desuetude," and the custom of getting such abominations "built up" after days and days of arduous toil by a patient tailor, dealing oftentimes with an impatient customer, has given way to the vibration of machinery, turning out with matchless precision the triumphs of modern art which adorn our most critical citizens, and which show in the perfection of every detail the acme of industrial development.

In the olden time long blue coats, with brass buttons, were the dress coats of the day, worn generally in summer, with buff Marseilles vests and white duck trousers and a garroting black silk stock closely squeezing the neck. In fact, it was nothing more or less than a spring, covered with black satin; this contrivance held the neck and head in an awkward position, and did much to increase the severe and grim carriage of our forefathers. Black satin vests were very much in vogue, covered more or less with embroidery, and in summer, black linen coats were principally worn.

In the Revolutionary times, as every one remembers, frills, laces, silver buckles and silk stockings adorned the masculine figure in a lavish degree. Knee breeches were the prevailing style in trousers, which gradually grew longer and longer until the perfect "long pant" came in all its glory and came to stay.

The dress coat of to-day is a garment that bears much of the contour of the one worn in the olden time, about the only difference being that the old style was cut very high in the neck, with an extremely wide collar and very tight sleeves, generally adorned with turned black cuffs; the skirts were long, reaching to the knees, and what with the high stock about the neck, the general effect was extremely straight laced and severe.

The cloth was cut, and together with the trimmings, was sent out by the old time clothier to the clothing contractor, and by him distributed among the farmers' families to be made up, consequently there was no uniformity either in make, finish or pressing; neither was there such a demand for pure woollen fabrics as commenced with later decades.

Satinets, cottonades, and jeans entered largely into clothing, and those elements

which are essential in its manufacture to-day were not even thought of then. "That was the day of individual and isolated effort, antedating the era of aggregation in factories, classification and division of labor, and invention of labor-saving machinery."

At the present day the reception and examination of woolens as they are received from the mills, the designing and modelling of styles and shapes for different seasons of the year, and the cutting of goods to be made up into garments for mens', boys and children's wear, receives the most careful and exact supervision (in the majority of cases from the heads of the firms themselves), and every piece of cloth, before it can be accepted and put through the machinery which evolves a finished apparel, is subjected to the most severe tests to determine its fitness for their purpose; each yard is closely scrutinized for evidences of materials foreign to pure wool fibre; following this the weather and color test is applied; first by exposing the fabric for a certain time to the sun and elements, together with a chemical application of muriatic acid to determine its permanency of dye, and secondly, by the application of white caustic potash, which entirely consumes the fabric if pure wool, and leaves a residue if there should be any cotton in the material.

The fabric having been finally decided upon, the process of manufacturing into clothing begins,—and right here comes in the remarkable contrast between the old methods and the accomplishments of to-day. On the one hand, the unpolished productions of an early age, before that most useful factor, the sewing machine, was invented, and on the other, the refined and perfect models of the nineteenth century.

The garments turned out to-day for the counters of our best ready-made establishments, are well nigh matchless in their perfection, and their lines are finished with a geometrical precision that is nothing short of marvellous. The skillful clothing designer makes the human anatomy his constant study, and drafts his patterns with such fine gradations, that the fit of a high-grade, ready-made suit of clothes is at once accurate and pleasing, and the shapes and styles are artistic and correct. No matter what a man's physique may be, whether he be long or short, tall, slim, rotund or extra size, he can at once slip into a suit of clothes that it appears as if it *grew* for him alone, attracting the eye as the height of mechanical skill and genius.

The statistics of the ready-made clothing business in Boston, as compared to the United States, shows a healthy and steady growth of this great industry, and exhibits an important ratio in which Boston merchants take the greatest pride.

In 1850, in Boston, the capital invested was about two and one-half million dollars, and the value of the manufactured product about eight and one-half million,—while in 1885, the capital invested was nearly nine million, and the manufacture about twenty-five million. In 1880, the product in men's clothing in the United States reached the enormous sum of nearly two hundred and ten million, and ranked seventh in a line of one hundred and twenty-seven industries, of which flour and slaughtering numbered one and two, and iron and steel, lumber, foundry products, and cotton goods numbered three, four, five and six respectively, clothing coming seventh, as above stated.

It is estimated that the amount expended for clothing is not far from four hundred and fifty millions of dollars, based on a male population of thirty million, calculating fifteen dollars to each man and boy.

The student of men's dress, in tracing it through the different centuries, fancies that he can detect the impelling thoughts of nations, in the shape of the toga, the cut of the tunic, the fashioning of the doublet, the reflection of the mental and intellectual growth of the ages, each successive era getting nearer and nearer to the sensible

and eminently practical garments now worn. What a comparatively simple task was undertaken by the early Greeks and later Romans in their personal adornment, compared with the lavish expenditure of time, brains and money in the interest of the fops of the fifteenth and sixteenth centuries, and how insignificant is the latter when we consider the amount of intellectual work necessarily expended to-day in designing and combining the different shades, dyes, patterns and material, and the immense capital required to prepare and conform them to the wants and tastes of the public! The wearer little knows how many different heads have planned and hands have wrought for his benefit, how much the inventive ability has been invoked to procure him new changes, and what a task has been placed on the physical endurance of the workman whose exhausting labor produces the grand result, making a new rule of proportion,—“As is the sound mind to the healthy body, so is the well-dressed man to the ‘Social Structure.’”

THE RISING SUN STOVE POLISH FACTORY AND BLACK LEAD WORKS.—Morse Bros., Proprietors, Canton, Mass. This is the largest establishment of its kind in the world. At this establishment is manufactured the world-renowned Rising Sun Stove Polish and the proprietors have recently commenced the manufacture of the Sun Paste Stove Polish. The establishment covers four acres, contains four million bricks, is run by two engines and four boilers of the capacity of three hundred horse power.

The daily product of stove polish is ten tons, and the material from which it is manufactured is imported from Germany, and from the island of Ceylon, south of Hindoostan. It will surprise our readers to know that this enormous business was started by Hon. Elijah A. Morse, M. C., in a small way when a schoolboy. The first product was made in a little hand mould, dried on a stove, and peddled from house to house. The first factory was a building 12x15, one story, and to-day the product of this establishment is known and sold in every civilized country on the face of the earth. In addition to carrying on this business, Congressman Morse has been in public life for twenty years, was a member of the state legislature in 1876, has been a member of the Massachusetts state senate, a member of the Governor's Council, and has been three times elected a member of congress, and at the election in 1892 Congressman Morse received a plurality of four thousand six hundred votes, and ran sixteen hundred votes ahead of the Republican ticket.

In addition to conducting this business and discharging his other public duties, Mr. Morse has delivered, in ten years, over two thousand addresses on public occasions in this and other states. He is descended from Samuel Morse, the Puritan, who settled in Dedham in 1637. Congressman Morse was married, in 1868, to Felicia, the daughter of Samuel A. Vining, of Holbrook, and has three sons. Mr. Morse is the sole proprietor of the business, but is assisted in its conduct by his two brothers. He has always been a generous employer of labor, and is deservedly popular with his townspeople.

W. W. SPAULDING & CO., of Haverhill, Mass., are among the largest shoe manufacturers of this country. The business of this company was established about fifteen years ago by Mr. W. W. Spaulding, the head of the present firm, which is composed of W. W. Spaulding, W. H. Leighton and H. W. Spaulding. The first factory was located on Essex street, where about seventy-five thousand pairs of shoes per year were made. Three years later the business had increased to such an extent that it was removed to quarters on Washington street, where the facilities for manufacturing were much greater. They remained in this factory for five years, when again their space became too limited to cope with the rapidly increasing demand of the trade, and they removed to another plant on Washington street. The growth of the

business continued without cessation, and in 1890 the firm moved into their present building, of which they are now the owners. This plant consists of a large five-story brick building, with over sixty thousand square feet of floor space, and thoroughly equipped with the most modern machinery. About six hundred hands are employed in manufacturing their immense output of one million pairs of men and women's McKay sewed and Goodyear turned slippers annually. The product is sold to jobbers of America, and the export trade of England and Australia.

B. H. SPAULDING of Milford, Mass., manufacturer of men, boy and children's fine straw hats, began business in 1860 on a small scale. About two hundred and fifty hands now are employed in their factory, which is a three-story frame building 150 x 40 feet in dimensions, finely equipped with the latest and most improved machinery. The product of this factory finds a market in all parts of the United States and South America. Mr. B. H. Spaulding, though now seventy years of age, is to be found at his office every day, but his son, Mr. H. B. Spaulding, has assumed active management of the business. This is one of the largest establishments of the kind in the vicinity of Milford.

PRANKER MANUFACTURING COMPANY of Saugus, Mass. This concern was organized in 1879 with a capital of \$60,000 for the manufacture of all kinds of woolen dress goods, suitings and cloakings. About one hundred and twenty-five hands are employed by the company. David Westwood, treasurer; Eli Bennett, resident-agent. Passavant & Co., are the New York selling agents.

WALTHAM.—AMERICAN WALTHAM WATCH CO.—This mammoth industry had its incipency in the early struggles of A. L. Dennison and others to establish the manufacture of watches. In 1854 The American Watch Company was organized with a capital of \$200,000, and about seventy-five workmen were employed. During the Civil War the business of the company received a marked impetus. There came a sudden and greatly increased demand for watches, and the productive capacity was multiplied many times. In 1878 the demand for increased facilities was so pressing, notwithstanding the additions repeatedly made, that it was decided to abandon the already large series of frame buildings and erect new and larger ones of brick. These buildings have a frontage on Crescent street of over seven hundred feet, with numerous wings extending toward the river, and enclosing three inner spacious courts, besides an elegant suite of offices at one end and an observatory at the other. The number of employees is nearly twenty-five hundred, and about eight hundred persons are employed in the manufacture of cases in New York.

From the small capital at the beginning, the stock has been from time to time increased until it now amounts to \$3,000,000. In 1885 the name of the company was changed to the American Waltham Watch Company, in order to secure to it any advantage that might ensue from the use of the name Waltham by a watch-producing corporation. The present officers are:—Ezra C. Fitch, president and Royal E. Robbins, treasurer and general manager, positions he has held for more than forty years.

Messrs. Robbins & Appleton are selling agents of the American Waltham Watch Company, and to this firm is due a considerable portion of the credit for the wide extension of the company's business. The offices of the firm are in New York, Boston, Chicago, and in London, Sydney, Australia, and several other foreign cities.

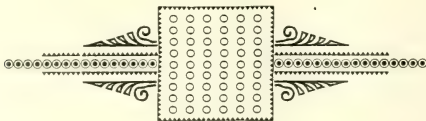
BOSTON MANUFACTURING COMPANY was incorporated in 1813 with a capital of \$400,000 for the manufacture of cotton cloth. Under date of February 2, 1816, the books of the company record the accomplishment of the first complete manufacture of cotton into cloth by machinery in this country. It would be productive of interesting results to compile from the records of the company an account of the

many improvements in cotton machinery that have been made by those in its employ since the first use of the power loom nearly eighty-five years ago. The growth of the company has been without cessation. The product, which is very large, consists of cotton underwear, sheetings, etc. The present capital is \$800,000. Officers: Arthur T. Lyman, president; A. M. Goodale, treasurer and agent. Townsend & Yale, and Clarence Whitman & Co., Boston and New York selling agents.

STARK TOOL COMPANY—Manufacturers of bench lathes, watchmakers' lathes and fine machinery. This business was conducted, prior to January, 1897, under the style of John Stark. It was established in 1862 by John Stark, Sr., father of the present proprietor of the business. Mr. Stark was the original and pioneer manufacturer in this country of the spring chuck lathe, used now in all fine mechanical work, but principally intended for the use of watchmakers. Upon the death, in 1889, of Mr. Stark, his son, John Stark, Jr., became the proprietor of the business, and he has sustained the high reputation that has made the name John Stark, or Stark Tool Company, a synonym of excellence in manufacture in every corner of the globe. In the entire thirty-four years of the existence of this business the factory has never been shut on a working day, nor an employe discharged on account of hard times, a record that is hard to equal in the history of any concern.

JUDSON L. THOMSON MANUFACTURING COMPANY.—This concern was established in 1882 by J. L. Thomson, and was incorporated in 1889. The product of this company consists of the "bifurcated rivet" and "the 'J. L. T. perfected buckle.'" The factory is a one-story brick building 500 x 75 feet in dimensions, and has two wings 75 x 75 feet. It is lighted with its own electric light plant, and equipped throughout with automatic sprinklers and the most improved machinery, and has a capacity of 1,000,000 rivets and 50,000 pairs of buckles per day. About 200 hands are employed in making this large output. Officers: R. S. Douglas, president; Wm. P. Bartel, treasurer. Capital, \$700,000.

WALTHAM MANUFACTURING COMPANY.—In 1893 the organizers of this company became convinced they could improve upon the best existing pattern of bicycle, as their experience in cycle advancement dated from the introduction of the industry, and they have inaugurated ideas which have proved of great utility. The wheel made was styled the "Orient." The factory is built and appointed for the construction of high-grade cycles, and in addition to much special machinery of their own design they have all the latest patterns of fine automatic tools—not only for the purpose of saving labor, but to insure accuracy in every operation—with the result that "Orient" have earned a name for excellence which money and prodigal advertising cannot obtain.



CHAPTER CXLIX.

HARVARD UNIVERSITY.

BY WILLIAM T. DAVIS.



ON the 28th of October, 1636, old style, the General Court of the Massachusetts colony passed the following order or act: "The court agree to give four hundred pounds towards a school or college whereof two hundred pounds shall be paid the next year and two hundred pounds when the work is finished, and the next court to appoint where and what building." The colony was at that time but six years old, and that it should so soon have not only laid the foundations of a common-school education for its youth, but also sought to promote a higher instruction than the common schools could furnish, has been so often looked upon with surprise that it is unnecessary in this sketch to comment on the event. In 1638, while the college was still in an embryo stage, John Harvard, a dissenting minister living in Charlestown, Mass., died, bequeathing by a non-cupative will one-half of his whole property amounting to £779. 17s. 2d. and his entire library of three hundred and twenty volumes to the institution. In consequence of this bequest the General Court, on the 13th of March, 1639, gave the name of Harvard to the college. Until within a few years nothing was known of John Harvard, except that he was a graduate of Emanuel College, Cambridge, and, coming to New England in 1637, settled in Charlestown, where he died September 14, 1638. In 1884, Mr. Henry F. Waters, with that peculiar gift of following a scent in genealogical matters which partakes something of the nature of instinct, discovered that he was the son of Robert Harvard, of the Parish of St. Saviour's, Southwark, London, and Katherine (Rogers) Harvard, his wife, and that he was baptized in that parish November 29, 1607. Robert Harvard, the father, is described as a butcher in the Parish Register, but it is probable that he was a dealer in meats rather than an actual slayer of cattle. In 1828, a monument was erected over Harvard's grave in Charlestown by the alumni of the college, and in 1883 a bronze-sitting statue by the sculptor French was given to the college by Samuel J. Bridge and erected near Memorial Hall.

In 1637, the year after the act founding the college, the General Court appointed twelve eminent men of the colony "to take order for a college at Newtown." Among these were John Winthrop, Thomas Shepard, John Cotton, Hugh Peters, Richard Bellingham, John Humphrey, John Wilson, Roger Herlackenden, John Davenport, Thomas Wells, Israel Stoughton and Thomas Dudley. Not long after the name of Newtown was changed to Cambridge in honor of the institution in England from which so many of the early leading men of the colony had graduated.

The catalogue of the library bequeathed by Harvard to the college shows him to have been a scholar. It contained, among books of a religious character, works of

Ames, Beza, Chrysostom, Calvin, Luther and Pelagius, and among those of a literary or classical nature, Bacon's "Essay's," Camden's "Remains," Homer, Isocrates, Plutarch, Pliny, Sallust, Terence, Juvenal and Horace.

The first building for the use of the college was erected in 1637 under the direction of Nathaniel Eaton, who was appointed in that year to take charge of the school, as it was then called, assisted by Nathaniel Briscoe. Of the antecedents of Eaton little is known, and his career as instructor was not such as to give him an enviable reputation. In 1639 the General Court granted him five hundred acres of land on the condition of his continuing in office for life, but in the same year his conduct towards the students and his assistant was such that he was dismissed and fined one hundred marks, amounting to £16 13s. 4d., and ordered to pay to Briscoe £30. He was then excommunicated by the church at Cambridge, and went to Virginia, and then to England. After the restoration of Charles the Second he conformed to the church, and obtaining a living, became a persecutor of the non-conformists, and finally an inmate of a debtor's prison. On his dismissal from office the superintendence of the building then erecting and the care and application of donations were transferred to Thomas Shepard. Mr. Shepard was a native of Lancaster, England, where he was born November 5, 1605. He graduated at Oxford in 1627, and came to Boston in 1635, becoming, soon after, pastor of the church in Cambridge, where he died August 25, 1649. On the 27th of August, 1640, Rev. Henry Dunster was placed over the institution, and was its first president. Mr. Dunster was born in Lancashire, England, about 1612, and was educated at Cambridge, England, in the class with Jeremy Taylor and John Milton. He arrived in Boston not long before his appointment, and after continuing in office until his resignation, October 24, 1654, died in Scituate, Mass., February 27, 1659. Under the direction of President Dunster the college at once took a rank which would have been creditable in a long-settled and cultivated community. During its early career it was conducted as a theological institution. Its course of studies followed closely that of the colleges in England, having, however, especially in view the supply of learned ministers to the churches of the colony. Not only were Latin and Greek included in its curriculum, but an acquaintance with those languages was necessary for admission. Hebrew, Chaldee and Syriac were also studied in connection with logic, ethics, arithmetic, geometry, physics, metaphysics, politics and divinity. At commencement the exercises included Latin, Greek and Hebrew orations, and in every respect the instruction was as thorough and complete as that which at that time the colleges of England could furnish. There appear to have been no professors, so-called, during the colonial period, but up to the close of that period, in 1692, the list of tutors included such men as George Downing, Samuel Danforth, Samuel Mather, Comfort Star, Jonathan Mitchell, Samuel Eaton, Urian Oakes, Michael Wigglesworth, Thomas Dudley, Thomas Shepard, Samuel Horton, Samuel Nowell, Samuel Bradstreet, Zechariah Symmes, Gershon Bulkely, John Bulkly, Samuel Shepird, Samuel Eliot, Peter Bulkley, Nathaniel Chauncy, Thomas Graves, Solomon Stoddard, Joseph Pyncheon, Daniel Gookin, Samuel Sewall, Peter Thatcher, Samuel Danforth (2d), Ammi Ruhamah Corlet, Samuel Angier, John Cotton, John Leverett and William Brattle. Of these, George Downey graduated at Harvard in 1642; Samuel Danforth in 1648; Samuel Mather, 1643; Jonathan Mitchell, 1646; Comfort Star, 1647; Urian Oakes, 1649; Michael Wigglesworth, 1651; Thomas Dudley, 1651; Samuel Horton, 1653; Samuel Nowell, 1653; Samuel Bradstreet, 1653; Gershon Bulkley, 1655; Zechariah Symmes, 1657; Thomas Graves, 1656; John Cotton, 1657; Nathaniel Chauncy, 1661; Solomon Stoddard, 1662; Joseph Pyncheon, 1664; Daniel

Gookin, 1669; Samuel Sewall, 1671; Peter Thacher, 1671; Samuel Danforth (2d), 1671; Ammi Ruhamah Corlet, 1670; Samuel Angier, 1673; John Leverett, 1680; and William Brattle, 1600; Samuel Eaton at Cambridge, England, 1629; Thomas Shepard at Oxford, 1627, and Peter Bulkley at Cambridge.

Under the administration of President Dunster the first code of laws was formed together with rules of admission, and the principles on which degrees should be granted. The title of these laws was "The laws, liberties and orders of Harvard College confirmed by the overseers and President of the College in the years 1642-1643-1644-1645 and 1646 and published to the scholars for the perpetual preservation of their welfare and government." As no estimate can be formed of the character of the college without an examination of these laws they are inserted in full in this narrative.

"1st. When any scholar is able to read Tully or such like classical Latin author extempore, and make and speak true Latin in verse and prose *Suo (ut aiunt) Marte*, and decline perfectly the paradigms of nouns and verbs in the Greek tongue, then may he be admitted into the college, nor shall any claim admission before such qualifications.

"2nd. Every one shall consider the main end of his life and studies to know God and Jesus Christ which is eternal life; John xvii. 3.

"3rd. Seeing the Lord giveth wisdom every one shall seriously by prayer in secret, seek wisdom of Him; Proverbs ii. 2, 3, &c.

"4th. Every one shall so exercise himself in reading the Scriptures twice a day that they be ready to give an account of their proficiency therein, both in theoretical observations of language and logic, and in practical and spiritual truths as their Tutor shall require according to their several abilities respectively, seeing the entrance of the word giveth light &c.; Psalm cxix. 130.

"5th. In the public church assembly they shall carefully shun all gestures that show any contempt or neglect of God's ordinances, and be ready to give an account to their Tutors of their profiting and to use the helps of storing themselves with knowledge as their Tutors shall direct them. And all Sophisters and Bachelors (until themselves make common place) shall publicly repeat sermons in the Hall whenever they are called forth.

"6th. They shall eschew all profanation of God's holy name, attributes, word, ordinances and times of worship; and study with reverence and love carefully to retain God and his truth in their minds.

"7th. They shall honor as their parents, magistrates, elders, tutors and aged persons by being silent in their presence (except they be called on to answer) not gainsaying; showing all those laudable expressions of honor and reverence in their presence, that are in use, as bowing before them, standing uncovered or the like.

"8th. They shall be slow to speak, and eschew not only oaths, lies and uncertain rumors, but likewise all idle, foolish, bitter, scoffing, frothy, wanton words and offensive gestures.

"9th. None shall pragmatically intrude or intermeddle in other men's affairs.

"10th. During their residence they shall studiously redeem their time, observe the general hours appointed for all the scholars and the special hour for their own lecture, and then diligently attend the lectures, without any disturbance by word or gesture; and if of anything they doubt, they shall inquire of their fellows, or in case of non-resolution modestly of their Tutors.

"11th. None shall under any pretence whatsoever frequent the company and society of such men as lead an ungart and dissolute life. Neither shall any without license of the overseers of the college be of the artillery or Trainband, nor shall any without the license of the overseers of the college, his Tutor's leave, or in his absence, the call of parents or guardians, go out to another town.

"12th. No scholar shall buy, sell or exchange any thing to the value of six pence without the allowance of his parents, guardians, or tutors; and whosoever is found to have sold or bought any such things without acquainting their Tutors or parents shall forfeit the value of the commodity, or the restoring of it according to the discretion of the President.

"13th. The scholars shall never use their mother tongue, except that in public exercises of oratory, or such like, they be called to make them in English.

"14th. If any scholar being in health shall be absent from prayers or lectures, except in case of urgent necessity or by the leave of his Tutor he shall be liable to admonition (or such punishment as the President shall think meet) if he offend above once a week.

"15th. Every scholar shall be called by his surname only, till he be invested with his first degree, except he be a fellow commoner, or knights eldest son, or of superior nobility.

"16th. No scholar shall under any pretence of recreation or other cause whatever (unless foreshowed and allowed by the President or his Tutor) be absent from his studies or appointed exercises above an hour at morning bever (meal or repast) half an hour at afternoon bever and hour and a half at dinner and so long at supper.

"17th. If any scholar shall transgress any of the laws of God or the House out of perverseness or apparent negligence after twice admonition he shall be liable, if not adultus to correction; if adultus his name shall be given up to the overseers of the College that he may be publicly dealt with after the desert of his fault; but in greater offences such gradual proceeding shall not be exercised.

"18th. Every scholar, that on proof is found able to read the original of the Old and New Testament with the Latin tongue, and to resolve them logically, without being of honest life and conversation, and at any public act hath the approbation of the Overseers and Masters of the College may be invested with his first degree.

"19th. Every scholar that giveth up in writing a synopsis or summary of Logic, Natural and Mental Philosophy, Arithmetic, Geometry and Astronomy, and is ready to defend his thesis and positions, withal skilled in the originals as aforesaid, and still continues honest and studious, at any public act after trial he shall be capable of the second degree of Master of Arts."

On the 7th of October, 1640, it was ordered by the court that the ferry between Boston and Charlestown be granted to the college. At that time the the only communication between the Boston peninsula and the mainland across Charles river was by the ferry. At a General Court, held at Boston in 1642, the following act was passed:

"Whereas through the good hand of God upon us there is a College founded in Cambridge in the County of Middlesex called Harvard College for the encouragement whereof this Court has given the sum of four hundred pounds and also the revenue of the ferry betwixt Charlestown and Boston, and that the well ordering and managing of the said College is of great concernment; it is therefore ordered by this Court, and the authority thereof that the Governor and Deputy Governor for the time being and all the magistrates of this jurisdiction together with the teaching elders of the six next adjoining towns viz: Cambridge, Watertown, Charlestown, Boston, Roxbury and Dorchester and the President of the said College for the time being shall from time to time have full power and authority to make and establish all such orders statutes and constitutions as they shall see necessary for the instituting guiding and furthering of the said College and the several members thereof from time to time in piety morality and learning; as also to dispose order and manage to the use and behoof of said College and its members thereof all gifts legacies, bequeaths, revenues, lands and donations as either has been, are or shall be conferred bestowed or any ways shall fall or come to the said College. And whereas it may come to pass that many of the said magistrates and said elders may be absent or otherwise employed about other weighty affairs when the said College may need their present help and council; It is therefore ordered that the greater number of said magistrates and elders which shall be present with the President shall have the power of the whole. Provided that if any constitution order or orders by them made shall be found hurtful to the said College or the members thereof or to the weal-public, then upon appeal of the party or parties grieved with the company or Overseers first mentioned they shall repeal the said order or orders if they shall see cause at their next meeting or stand accountable thereof at the next General Court."

On the 3d of May, 1650, the General Court granted the following charter to the college:

"Whereas, through the good hand of God many well-devoted persons have been and daily are moved and stirred up to give and bestow sundry gifts, legacies, lands and revenues for the advancement of all good literature, arts and sciences in Harvard College in Cambridge in the county of Middlesex, and to the maintenance of the President and Fellows, and for all accommodations of buildings and all other necessary provisions that may conduce to the education of the English and Indian youth of this country in knowledge and godliness; It is therefore ordered and enacted by this Court and the authority thereof that for the furthering of so good a work, and for the purposes aforesaid from henceforth that the said college in Cambridge in Middlesex in New England shall be a corporation consisting of seven persons, to wit: a President, five Fellows, and a Treasurer or Burser; and that Henry Durster shall be the first President, Samuel Mather, Samuel Danforth, Masters of Art, Jonathan Mitchell, Comfort Star and Samuel Eaton Bachelors of Art shall be the five Fellows; and Thomas Danforth to be present Treasurer, all of them being inhabitants in the Bay and shall be the first seven persons of which the said corporation shall consist; and that the said seven persons or the greater number of them procuring the presence of the Overseers of the College, and by their counsel and consent shall have power and are hereby authorized at any time or times to elect a new President, Fellows or Treasurer, so oft and from time to time as any of the said persons shall die or be removed; which said President and Fellows for the time being shall for ever hereafter in name and fact be one body politic and corporate in law to all intents and purposes; and shall have perpetual succession; and shall be called by the name of President and Fellows of Harvard College, and shall from time to time be eligible as aforesaid, and by that name they and their successors shall and may purchase and acquire to themselves, or take and receive upon free gift and donation any lands, tenements or hereditaments within the jurisdiction of the Massachusetts not exceeding five hundred pounds per annum, and any goods and sums of money whatsoever, to the use and behoof of the said President, Fellows and scholars of the said college, and also may sue and plead, or be sued and impleaded by the name aforesaid in all Courts and places of judicature within the jurisdiction aforesaid.

"And that the said President with any three of the Fellows shall have power, and are hereby authorized, when they shall think fit to make and appoint a common seal for the use of the said corporation. And the President and Fellows, or major part of them, from time to time may meet and choose such officers and servants for the college, and make such allowance to them, and them also to remove, and after death or removal to choose such others, and to make from time to time such orders and by-laws for the better ordering and carrying on the work of the college, as they shall think fit; provided the said orders be allowed by the overseers. And also that the President and Fellows, or major part of them with the Treasurer shall have power to make conclusive bargains for lands and tenements to be purchased by the said corporation for valuable consideration.

"And for the better ordering of the government of the college and corporation, Be it enacted by the authority aforesaid that the President and three more of the Fellows shall and may from time to time upon due warning or notice given by the President to the rest hold a meeting for the debating and conducting of affairs concerning the profits and revenues of any lands and disposing of their goods (provided that all the said disposings be according to the will of the donors), and for direction in all emergent occasions; execution of all orders and by-laws; and for the procuring of a general meeting of all the overseers and society in great and difficult cases; and in case of non agreement; in all which cases aforesaid the conclusion shall be made by the major part, the said President having a casting voice, the overseers consenting thereunto; and that all the aforesaid transactions shall tend to and for the use and behoof of the President, Fellows, scholars and officers of the said college and for all accommodations of buildings, books and all the necessary provisions and furnitures as may be for the advancement and education of youth in all manner of good literature arts and sciences And further be it ordered by the Court and the authority thereof that all the lands, tenements and hereditaments, houses and revenues within this jurisdiction, to the aforesaid President or college appertaining not exceeding the value of five hundred pounds per annum shall from henceforth be freed from all civil imposition taxes and rates; all goods to the said corporation, or to any scholars thereof appertaining shall be exempted from all manner of toll customs and excise whatever And that the said President, Fellows and scholars together with the servants and other necessary officers to the said President or College appertaining not exceeding ten, viz three to the President, and seven to the College belonging shall be exempted

from all personal civil offices, military exercises or services, watchings and wardings; and such of their estates, not exceeding one hundred pounds a man shall be free from all county taxes or rates whatsoever and no other.

"In witness whereof the Court hath caused the seal of the Colony to be hereunto affixed. Dated the one and thirtieth day of the third month called May Anno 1650. Thomas Dudley Governor."

In 1657 the above charter was so far amended as to give the corporation power to make orders and by-laws without the consent of the overseers, provided that said orders and by-laws should be alterable by the overseers at their discretion, and still further amended in some particulars not so important.

During the administration of President Dunster, the other colonies, Plymouth, Connecticut and New Haven, became interested, through the influence of the commissioners of the United Colonies, in the welfare and success of Harvard, and more or less aid was extended to it. The commissioners advised the General Court of Massachusetts to take some measures to prevent graduates of the college from removing into other countries. It was found that of the twenty scholars who had graduated up to and inclusive of 1645, twelve had found employment in Europe, of whom eleven never returned. In 1651 the college seems to have been in a sore strait, repair and enlargement of the buildings being necessary, and in reply to his application to the United Commissioners for assistance, they promised to propound to the several colonies to give "some yearly help, by pecks, half bushels and bushels of wheat." At that time there was little or no money in Massachusetts, and the circulating medium or currency consisted chiefly of wampum and such commodities as corn, beans, wheat, etc. In 1653 Dunster made himself conspicuous in opposing the administration of baptism to infants, and was indicted for disturbing the ordinance of infant baptism in Cambridge, and after conviction was sentenced to a public admonition and placed under bonds for good behavior. On the 24th of October, 1654, he resigned by compulsion his office of president and retired to Scituate, where he died, as before stated, February 27, 1659. It cannot be denied that the college owed much, perhaps its life, to Dunster. As with a new-born child inhaling its first breath, and needing the most unrelenting care and wholesome nourishment, the college found in him a tender and devoted nurse, and in his arms it was warmed and nurtured unto a useful life.

On the 27th of November, 1654, Charles Chauncy assumed the office of president. Mr. Chauncy was born in Yardley, about thirty miles from London, and baptized in 1592. He was bred at Westminster School, and graduated at Cambridge in 1613, being afterwards professor of Greek, and later of Hebrew, in Trinity College. He began a clerical life at Marston St. Lawrence, and was vicar at Ware from 1627 to 1634. He was deprived of his living on account of non-conformity, and came to New England, and from 1638 to 1641 he was associated with Rev. John Rayner, in the pastorate of the Plymouth church. He brought with him to Massachusetts three sons, Isaac, Ichabod and Barnabas, all of whom graduated at Harvard, the first two in 1651 and the last in 1657. Two sons, twins, Elnathan and Nathaniel, were born in Plymouth, both of whom graduated at Harvard in 1661. In 1641 he became pastor of the Scituate church, and in 1654 he was appointed the successor of Mr. Dunster. The career of the college under President Chauncy was in the main a successful one. It was in want of money, and the compensation of the president was a beggarly pittance. Its educational methods, however, were kept up to a high standard, and, under the care of Chauncy, such men as Gersham Bulkeley, Increase Mather, Thomas Graves, Zechariah Symmes, John Cotton, second, Elisha Cooke, Samuel Shepard,

Nathaniel Saltonstall, Samuel Willard, Simon Bradstreet, Peter Bulkeley, John Bel-
 lingham, Solomon Stoddard, Joseph Dudley, Nehemiah Hobart, Adam Winthrop,
 Daniel Gookin, Samuel Sewall and Samuel Danforth, all of whom became distin-
 guished in either the religious or political life of the colony, were instructed in its
 halls. President Chauncy applied several times to the General Court for a more
 liberal support, and, in an application made in 1663, he stated "that his salary was
 not sufficient for the comfortable supply of his family with necessary food and
 raiment; that he had been compelled to expend his own estate, and besides had been
 brought greatly into debt; and that the provision for the president was not suitable,
 being without land to keep either horse or cow upon, or habitation to be dry or warm
 in; whereas in English universities the president is allowed diet, as well as stipends
 and other necessary provisions, according to his wants." The House of Representa-
 tives, notwithstanding an adverse report of the committee to whom his application
 was referred, voted that he should "receive out of the public treasury five pounds
 a quarter." The magistrates, or assistants, corresponding to the Senate of the
 present legislature of Massachusetts, refused, however, to consent to even this small
 allowance. Mr. Chauncy was president until his death, which occurred February 19,
 1671-2. For several years before his death, the condition of the college was a criti-
 cal one. Its buildings were out of repair, and all its efficient funds did not amount
 to £1,000. The first glimmer of hope arose from the action of the town of Ports-
 mouth, which in 1669 "pledged the payment of sixty pounds sterling a year for seven
 years ensuing, to be improved by the overseers of the college, for the advancement of
 good literature there." Subscriptions came in also from other quarters, even from
 England. Previous to 1669, the sum of £1,273 5s. had been given at various times,
 of which the largest gifts were a legacy from Edward Hopkins, of Hartford, of £100
 in 1658, a gift from the inhabitants of Eleutheria of £121 in the same year, a legacy
 from Richard Saltonstall of £320 in 1659, gifts from Robert Keyne, of Boston, and
 John Dodderidge, in Dover county, of £100 and £200, respectively. In 1669, beside,
 the gift of the town of Portsmouth, there were those of Boston £800, Salem £130
 2s. 3d., Cambridge £199 1s. 8d., Charlestown £196 11s. 1d., and others amounting to
 £2,697 5s.

In October, 1672, Leonard Hoar was chosen to succeed Mr. Chauncy. Mr. Hoar
 was born in England about 1629 and graduated at Harvard in 1650. After leaving
 college he returned to England and having prepared himself for the ministry was
 settled in Wanstead, Essex. In 1662 he was removed for non-conformity and, com-
 ing again to Massachusetts, was for a short time an assistant of Rev. Thomas
 Thatcher in the old South church in Boston. Mr. Hoar was a physician as well as
 minister, and in 1671 obtained a medical diploma from the Cambridge University in
 England. The General Court, having predilections in his favor, added fifty pounds
 to the usual grant of one hundred as the salary of the president.

In October, 1672, the year of the death of Mr. Chauncy and of the accession of
 Mr. Hoar, the General Court passed a new charter which changed the name of the
 corporation from "The President and Fellows" to that of "The President, Fellows
 and Treasurer." There is a mystery about this charter which has never been cleared
 up. Though entered in the journal of the General Court it does not appear on the
 records of the college and has never been recognized. The new name was never
 assumed and the methods of the college were never in any way changed to conform
 to the provisions of the charter.

Under President Hoar, who soon became unpopular, the college was in an un-
 satisfactory condition. Four of the corporation resigned, and his relations with the

students were unpleasant. Cotton Mather said that the scholars "used to turn cud-weeds and travestie whatever he did and said, with a design to make him odious." The General Court, in 1674, summoned before them the president, corporation and trustees, and after a hearing, voted "that if the college be found in the same languishing condition at the next session, the president is concluded to be dismissed without further hearing." Mr. Hoar did not wait for such a contingency, but resigned March 4, 1674-5, and, retiring to Braintree, died in that town November 28, 1675.

Soon after the resignation of Mr. Hoar, Rev. Urian Oakes, who had resigned as a member of the corporation owing to the embarrassing condition of the college under the last president, was requested to assume the presidency, but declined. He accepted, however, the superintendency of the college, with the rank and duties of president, and served in that capacity from April 7, 1675, to February 2, 1679-80. Mr. Oakes was born in England in 1621 and came to Massachusetts in 1624, when three years of age. He graduated at Harvard in 1649, and having prepared himself for the ministry, preached for a time in Roxbury. He then went to England and was settled in Litchfield, Hampshire, until 1662, when he was removed for non-conformity. In 1668 he succeeded Rev. Jonathan Mitchell as pastor of the church at Cambridge, Mass., and served until he took charge of the college. While acting as superintendent of the college and unwilling to take the presidency, Rev. John Rogers was chosen president but declined, and futile efforts were made to find a suitable man for the place in England. In 1679 Mr. Oakes finally agreed to accept the presidency, and occupied that position from February 2, 1679-80, until his death, which occurred in Cambridge July 25, 1681.

After the death of Mr. Oakes, Rev. Increase Mather and Rev. Samuel Torrey were each chosen president and both declined. In 1682 Rev. John Rogers was chosen and served from April 10, in that year, until his death, July 2, 1684. Mr. Rogers was the son of Rev. Nathaniel Rogers, of Haverhill, England, and Ipswich, Mass., and grandson of Rev. John Rogers, of Dedham, England. He was born in Coggeshall, England, in January, 1631, and came with his father to Massachusetts in November, 1636. He graduated at Harvard in 1649 and studied both medicine and theology, afterwards becoming pastor of the Ipswich church.

After the death of Mr. Rogers, Rev. Joshua Moody declined the office of president, and on the 11th of June, 1685, Rev. Increase Mather assumed the duties of president *pro tem.*, and served in that capacity and as rector, and as actual president, until September 6, 1701. Mr. Mather, whose career is almost too well-known to be specially referred to in this narrative, was the son of Richard Mather, who was born in Lawton, Lancashire, England, in 1596, and who died in Dorchester, Mass., April 22, 1669. Richard Mather was the son of Thomas, and grandson of John Mather, of the chapel of Lawton in the parish of Winweck, Lancashire. Increase Mather was born in Dorchester, Mass., June 21, 1639, and graduated at Harvard in 1656. He afterwards took his second degree at Trinity College, Dublin, in 1658, and after preparing himself for the ministry, took charge of the church in Great Torrington in Devonshire. In 1659 he became chaplain of the garrison on the island of Guernsey, and in 1661, owing to his non-conformity, he returned to Massachusetts. In 1664 he became pastor of the North Church in Boston, and continued his connection with that church until his death, which occurred in Boston, August 23, 1723. The period of his connection with Harvard College was an eventful one, and one in which he was called upon to play an important part. The Massachusetts Colony charter was vacated in 1684, the administration of President Dudley and Governor Andros fol-

lowed, and later ensued the contest which ended with the issue of the charter of the province of Massachusetts Bay in 1691. During all this period the college experienced its share of the embarrassments which surrounded the colony. On the 25th of July, 1686, President Dudley appointed Mr. Mather rector of Harvard, and he served with that title until June 27, 1692, when he was made actual president. Thus, during the sixteen years of his college service, he acted one year as president *pro tem.*, six years as rector, and nine years as president. In 1688 he went to England, and appointed William Hubbard temporary rector to officiate at commencement in his place. After the revolution of 1688 and the accession of William and Mary, he was appointed agent of the Massachusetts Colony to secure a new charter, and remained in England until 1692, returning after the issue of the charter.

After the new provincial charter went into operation, the General Court of Massachusetts, on the 27th of June, 1692, passed a new charter for the college. One of the provisions of the provincial charter was that all laws passed by the General Court should be transmitted to the king in council for approval, and could be allowed or disallowed within three years, but that they might take effect and continue in force until their disallowance. As the charter was finally disallowed it is unnecessary to refer to its provisions. The new corporation, however, established by it met and organized, and proceeded to exercise the authority granted by it. Among the powers conferred on the corporation by the charter was that of conferring academical degrees, and under this power the corporation conferred its first degree, that of Doctor of Divinity, on Mr. Mather, its president. At the same time, the degree of Bachelor of Divinity was conferred on John Leverett and William Brattle, tutors in the college. The management of the college went on under the new charter on the assumption that it would be allowed by the Privy Council and become permanent, but before the expiration of three years it was disallowed by the king, avowedly on the ground of an omission of any provision for the exercise of a visitational power. It may, however, be safely assumed that the growing unpopularity of Mather had been the cause of active agencies which led the Privy Council to give a check to the career of an ambitious man, a lover of power, at whose suggestion the new charter was passed containing provisions for a centralization of power over which he hoped to have complete control. The charter vested every power in a corporation of ten persons, of whom the president was one, and made no provision, as the old charter did, for a board of overseers.

During his entire administration President Mather remained pastor of the North Church in Boston. His non-residence finally, as his popularity waned, became distasteful to the General Court, and a vote was passed requiring the president of the college to reside in Cambridge. Of the vote he apparently took no notice, and two years after, in June, 1695, the House of Representatives passed another vote, in which they desired "Mr. Mather to go and settle at the college, that the college may not be destitute any longer of a settled president; that if he take up with this proposal he shall be allowed annually one hundred and fifty pounds; but if said Mr. Mather do not settle there, then that the corporation do propose some other meet person to the General Court, who may be treated with to settle there, that the college may no longer be destitute of a settled president." After the passage of this vote Mr. Mather notified the corporation of his intention to resign, but was induced by them to remain in office and continue his non-residence.

After the disallowance of the new charter the affairs of the college were thrown into confusion. The vacation of the colonial charter seemed to destroy the foundation on which the old college charter rested and now the new college charter had

been abrogated. In this emergency Lieutenant-Governor Stoughton, then acting governor, directed the old college government to continue in the management of the college until a new charter could be passed and approved. On the 27th of November, 1695, a new charter was proposed in the council and passed that body on the 17th of December. This charter provided that the number of the corporation should consist of sixteen, fourteen fellows and the president and treasurer; that the president and all fellows receiving salary should reside at the college. Under this charter Increase Mather was president; Charles Morton, Michael Wigglesworth, James Allen, Samuel Torrey, Samuel Willard, Nehemiah Hobart, Peter Thatcher, John Danforth, Cotton Mather, John Leverett, William Brattle, Nehemiah Walter, Paul Dudley, Benjamin Wadsworth and Thomas Brattle were fellows. So much opposition to the passage of this charter in the House of Representatives was made by Mather and others that another was constituted and passed both branches of the General Court June 2, 1697. This charter provided that the corporation should consist of seventeen persons, the president, vice-president, fourteen fellows and a treasurer, and that Increase Mather should be the first president; Charles Morton, vice-president, and James Allen, Michael Wigglesworth, Samuel Torrey, Samuel Willard, Nehemiah Hobart, Peter Thatcher, John Danforth, Cotton Mather, John Leverett, William Brattle, Nehemiah Walter, John White, Paul Dudley and Benjamin Wadsworth, masters of art, should be fellows, and Thomas Brattle, master of art, treasurer. It also provided that the president should reside at the college, and that the governor and commander-in-chief of the province and the council should be the visitors at the college. It soon became evident that this charter would meet the fate of the last and be disallowed. Mather was anxious to be sent as an agent to England to urge its confirmation but the General Court gave him no encouragement. On the contrary they became still more dissatisfied with his pertinacity in continuing a non-resident, and on the 3rd of December, 1698, passed another vote requesting him to remove to Cambridge. This he still declined to do and threatened to resign. In July, 1699, still another charter was passed by the General Court which provided that no person should be chosen and continued president, vice-president or fellow of the corporation but such as should declare and continue their adherence unto the principles of reformation which were espoused and intended by those who first settled the country and founded the college and have hitherto been the profession and practice of the generality of the churches of Christ in New England. On account of this provision the charter was negatived by Governor Bellomont. To the narrow and meddlesome spirit of Mather who felt that the supremacy of the clergy was melting away this clause in the charter was probably due. On the 12th of July a draft of a charter was prepared by the General Court and intrusted to General Bellomont to procure the approval of the king. The death of the governor, however, put an end to his embassy, and the proposed charter came to an untimely death.

In order that the charter history may be completed at this point in the narrative the following resolve of the General Court, passed December 6, 1707, is here inserted:

"Anno Regni Annæ Reginæ Sexto.

"At a Great and General Court or Assembly for her Majesty's Province of the Massachusetts Bay in New England begun and held at Boston upon Wednesday the twenty-eighth of May 1707 and continued by several prorogations unto Wednesday the twenty-eighth of October following being the third session.

"In Council Thursday December 4th, 1707.

"The Governor and Council having accepted and approved the choice made by the Fellows

of Harvard College in Cambridge of Mr. John Leverett to be present President of the said College to fill up that vacancy, Propose that the House of Representatives consider of and grant a suitable salary to be paid to the said President annually out of the public treasury for his encouragement and support during his continuance in said office residing at Cambridge and discharging the proper duties to a President belonging and entirely devoting himself to that service.

"And inasmuch as the first foundation and establishment of that House and the government thereof hath its original from an Act of the General Court made and passed in the year one thousand six hundred and fifty which has not been repealed or nullified; The President and Fellows of the said College are directed from time to time to regulate themselves according to the rules of the constitution by the said Act prescribed; and to exercise the powers and authority thereby granted for the government of the House and support thereof."

By this resolve the clouds of uncertainty and doubt which had rested on the college were swept away, and the original charter in all its directness and simplicity was restored. From this moment the college took on a new life, and the true friends of education saw reason to congratulate themselves on the beginning of a new career of prosperity and usefulness. In the meantime Mather, often resisting for a time ineffectually the determination of the General Court that he discontinue his non-residence, in July, 1700, removed to Cambridge. In October he returned to Boston on account of his health as he claimed, but once more taking up his residence at the college he again returned to Boston where he determined to remain. On the 6th of September he was to all intents and purposes removed from office by the General Court under the operation of the resolve "that the Rev. Samuel Willard, nominated vice-president of the college (together with the gentlemen named for the corporation in the order of this court), be desired to take the oversight of the college and the students there according to the late establishment made by the court, and to manage the affairs thereof as he has proposed in his answers to the court, viz., to reside there one or two days and nights in a week, and to perform prayers and expositions in the hall, and to bring forward the exercises of analyzing."

It has been stated that under the charter of June 2, 1697, a vice-president was provided for. On the 4th of June Charles Morton was chosen to that office. Mr. Morton was born in Pendavy, Cornwall, in 1626, and was descended from Thomas Morton, secretary of Edward III. He was educated at Oxford, where he became a Fellow, and afterwards prepared himself for the ministry. In 1662 he was removed from his living on account of non-conformity, and after preaching for a time in a non-conformist chapel at St. Ives he taught an academy for boys at Alwington Green. In 1636 he came to Massachusetts and was settled in Charlestown, and after his appointment to the office of vice-president of the college served until his death, April 11, 1698. It should be mentioned that during the administration of Mather, Lieutenant-Governor Stoughton erected at his own expense in 1700 Stoughton Hall, which was taken down in 1780, and replaced later by the present Hall bearing the same name.

After the removal of President Mather, Samuel Willard was appointed to superintend the affairs of the college. He had been made vice-president on the 14th of March, 1701, and as he was unwilling to take up his permanent residence at Cambridge he assumed charge of the college, July 12, 1701, as vice-president, agreeing as before stated to spend a certain number of days and nights at the college. Mr. Willard was the son of Simon Willard, of Horsemonden, England, who came to Massachusetts in 1634 and settled in Concord, Mass. He was born in Concord, January 31, 1640, and graduated at Harvard in 1659. He was settled as pastor of the church in Groton, Mass., in 1663, and was afterwards an assistant of Rev. Thomas

Thatcher of the Old South Church in Boston. His connection with the college continued until his death, which occurred in Boston, September 12, 1707.

On the 28th of October, 1707, John Leverett was chosen by the corporation as the successor of President Willard, and on the 14th of January, 1707-8, was inducted into office. Mr. Leverett was a grandson of Sir John Leverett, who was born in England in 1616, and came to Boston in 1633. Sir John was speaker of the Massachusetts House of Representatives, Major-General of the colony, Assistant from 1665 to 1670, Deputy Governor from 1671 to 1672 and Governor from 1673 to 1678, and died March 16, 1679. President Leverett, his grandson, was born in Boston, August 25, 1662, and graduated at Harvard in 1680. He was educated as a lawyer, was Speaker of the House of Representatives in 1600, Judge of Probate and Judge of the Superior Court of Judicature from 1702 to his inauguration as president of the college. If anything was needed to complete the humiliation of Mather it was the appointment of a layman to the presidency. He had experienced personal shocks in his connection with the college, but he felt that this was a blow to clerical supremacy. What had been grief ripened into bitterness, and his attacks on Governor Dudley, who had approved the election of Leverett, showed that his long-assumed piety was only the most cunning hypocrisy. His administration was a successful one, and his efforts to enlarge the funds of the college were active and earnest. After the removal of Mather contributions were liberally made. In 1703 Charles Sprague, of Charlestown, bequeathed £400; Thomas Danforth, in 1704, £100; Benjamin Brown, in 1708, £200; William Brown, in 1716, £100, William Brattle, in 1717, £250; Rev. Henry Gibbs, in 1722, £100; Ephraim Flynt, in 1723, £100; Thomas Brattle, in 1713, £200, and in 1716 Rev. Daniel Williams gave his estate in Essex, from which the college realized the sum of \$13,000. In 1718 the town of Rutland, Mass., gave to the college two hundred and fifty acres of land in that township, and in 1719 the General Court gave to it five hundred acres of land in the present towns of Lunenburg and Townsend, Mass. Besides the above gifts John Frissle gave \$150, and in 1723 Madam Mary Saltoustaill gave £100. All these gifts were made during the administration of President Leverett, which terminated with his death, May 3, 1724. In 1720 the General Court caused the present Massachusetts Hall to be erected at an expense of \$3500.

During the administration of President Leverett, Thomas Hollis, of England, enters into the history of the college as one of its benefactors. In 1719 he sent an invoice of twelve casks of nails and one cask of cutlery and during nine years continued to send contributions of various articles the proceeds of which were invested as he directed for the support of ten poor scholars, a Professor of Divinity and a Professor of Mathematics and Natural Philosophy the whole amounting to about £2000 sterling. Mr. Hollis was a Baptist and he made it a condition of his gift that none should be excluded from his charity because they were Baptists. In 1721 he laid the foundation of the first professorship in the college one of Divinity, which still bears his name. The professorship was at once filled by the appointment of Edward Wigglesworth.

On the 11th of August, 1724, Rev. Joseph Sewall, of the old South church, was chosen President, but declined, and on the 18th of November Rev. Benjamin Colman, of the Brattle Street church, who also declined. On the 8th of June Rev. Benjamin Wadsworth was chosen President and with some reluctance accepted the office. Mr. Wadsworth was born in Milton, Mass., in 1669 and was a son of Capt. Samuel Wadsworth who was killed by the Indians April 18, 1676. His grandfather, Christopher Wadsworth, was born in Duxbury, Mass., in 1632. He graduated at Harvard in

1690 and for a time an assistant in the first church in Boston was in 1696 chosen colleague of Rev. James Allen, of that church. He served as President from July 7, 1725, until his death March 16, 1736-7. The court allowed him one hundred and fifty pounds to enable him to enter upon the duties of his office and in the December following allowed him an additional sum of seventy pounds, the accumulations from the rents of Massachusetts Hall for the five previous years and the rent of the Hall for the current year making in all four hundred pounds. He was also to be allowed the future rents of the Hall and one thousand pounds were granted "for the building and finishing a handsome wooden dwelling house, barn, out-houses, etc., on some part of the lands adjacent and belonging to the said college for the reception and accommodation of the Reverend President of Harvard College for the time being." This building still standing and known as the Wadsworth house has been used until within a few years as the President's house.

During the administration of President Wadsworth Thomas Hollis appears again on the scene. In 1726 he established a professorship of Mathematics and Natural Philosophy, and Isaac Greenwood was its first incumbent. He also sent a philosophical apparatus, many valuable books, and Hebrew and Greek types. He died January 22, 1731. The college was indebted also to his brother, Nathaniel Hollis, for £350 to found two scholarships, and to John Hollis for various gifts, and to Thomas Hollis, second son of Nathaniel, for £700. In 1764, when a new hall was erected, it was called Hollis, after the family to which the college owed so large a debt. Among other gifts to the college during this administration were £700 from Rev. Thomas Cotton, of London, in 1727; \$250 in 1731, from John Frisell, of London; £300 in 1733, from Madam Dorothy Saltonstall; £110, bequeathed by President Wadsworth, in 1737; £1000, bequeathed by Madam Mary Saltonstall, in 1730, and £300, bequeathed by Thomas Fitch, in 1737.

After the death of President Wadsworth, on the 20th of May, 1737, Rev. William Cooper, a colleague of Rev. Dr. Colman, of Brattle Street Church, was chosen president, and declined. On the 20th of June, 1737, the election of Rev. Edward Holyoke by the corporation on the 30th of May was approved by the trustees, and on the 28th of September he was inaugurated. Mr. Holyoke, a grandson of Rev. Elizur Holyoke, was born in Boston June 25, 1689, and graduated at Harvard in 1705. He was a tutor at Harvard from 1709 to 1712, and was settled over the church in Marblehead in 1716, and served as president of the college from September 28, 1737, until his death, June 1, 1769. During his administration the college made considerable additions to its funds and estate. In 1741 the widow of Samuel Holden, of London, and her daughters contributed £400 sterling to build a chapel, which is still known as Holden Chapel, though used for educational instead of religious purposes. On the 12th of June, 1762, the legislature appropriated £2000 for the erection of a new hall. In December, 1763, the hall was completed, at a cost of more than £4800, and, as heretofore stated, was named Hollis Hall.

On the 24th of January, 1764, Harvard Hall, a brick building which had been built in 1677, by contributions made throughout the colony, to take the place of a wooden one, was burned, and the present Harvard Hall was erected on substantially the same site. The hall which was destroyed contained a valuable library of five thousand volumes and philosophical apparatus, and the legislature at once appropriated £2000 to rebuild it. It was finished in 1766 at a cost of £6112 18s. 7¾d. In September, 1751, John Alford, of Charlestown, died and bequeathed what finally amounted to £1300, to be applied by his executors to such objects as they might select. It was given by them to the college to establish a professorship on some

science of public utility. In February, 1789, the executors appropriated the money, with accumulated interest for the support of a Professor of Natural Religion, Moral Philosophy and Civil Polity. In 1760 Samuel Epes died, bequeathing £300 to the college. In 1764 Thomas Hancock died, bequeathing £1000 sterling for the foundation of a professorship of the Oriental Languages, especially the Hebrew. Thomas Hollis, the third of that name, made many gifts of books to the college and contributed £200 sterling to the fund for rebuilding Harvard Hall. He died in 1774, having given to the college during his life £1400, and bequeathed to it an additional sum of £500 sterling. In 1738 James Townsend bequeathed £500, old tenor, the income to be paid to the Hollis Professor of Divinity. Thomas Hutchinson bequeathed, in 1739, £300 to the college, and Daniel Henchman, in 1742, gave one hundred ounces of silver, and in 1747 £150, old tenor, the income to be paid to the Hollis Professor of Divinity. In 1758 Mr. Henchman gave £66 13s. 4d., the income to be paid to the Hollis Professor of Mathematics and Natural Philosophy.

During the last seven years of President Holyoke's administration twenty-six townships in the district of Maine were granted to different parties, with a reservation in each of a share for the college. In January, 1751, Paul Dudley died, leaving, by his will, the sum of £133 6s. 8d., about £100 sterling, the interest to be applied for an annual lecture at the college upon four subjects in order—Natural Religion, Revealed Religion, the Corruptions of the Church of Rome, and the Validity of Presbyterian Ordination. These lectures are known as the Dudleian Lectures, and were to be delivered, as directed by their founder, by "a sound, grave, experienced divine, at least forty years of age."

After the death of President Holyoke the corporation, on the 18th of December, 1769, chose Rev. Samuel Locke president, and March 21, 1770, he was inaugurated, continuing his service until December 1, 1773. Mr. Locke graduated at Harvard in 1755, and was settled as pastor of the church in Sherburne, Mass., in 1757. Only two incidents worthy of consideration occurred during his short administration. In 1771 the first degree of Divinity since that conferred on Increase Mather in 1693 was given to Rev. Nathaniel Appleton, and in 1773 the class catalogue was printed in alphabetical order, instead of according to the supposed social rank of the students.

In December, 1773, President Locke resigned, and in 1773 Professor John Winthrop, Rev. Samuel Cooper and Rev. Andrew Eliot were successively chosen, but declined. On the 18th of July the corporation chose Rev. Samuel Langdon, of Portsmouth, N. H., and on the 14th of October he entered upon his duties. Mr. Langdon was born in Portsmouth in 1723, and graduated at Harvard in 1740. He resigned the presidency August 29, 1780, and returned to the ministry. In 1788 he was a delegate to the Constitutional Convention of New Hampshire, and died in November, 1797. His presidency covered an eventful period. In 1775, after the battle of Lexington, the students were ordered to leave the college, and some of the buildings were converted into barracks. On the 15th of June the Provincial Congress ordered the room in Harvard Hall to be cleared, and the library to be removed to Andover. Commencement ceremonies in that year were abandoned, and degrees were conferred by a general diploma. In the autumn the educational exercises of the college were carried on in Concord, and such a portion of the library as was needed was removed from Andover to that town. After the evacuation of Boston the college returned, in June, 1776, to Cambridge, and in that year the first degree of Doctor of Laws was conferred on General Washington.

Joseph Willard was the successor of President Langdon, and was installed December 19, 1781, and served until his death, September 25, 1804. Mr. Willard was a

descendant of Simon Willard, of Salem, who was born in the county of Kent, England, and died in Charlestown, Mass., April 24, 1676. President Willard was born in Biddeford, Me., December 29, 1738, and graduated at Harvard in 1765. He was a tutor at Harvard from 1766 to 1772, and was ordained in the latter year colleague pastor of the Beverly church, where he remained until his elevation to the presidency. In May, 1786, the General Court granted, for the last time, money towards the salaries of officers of the college. At that time about £480 was granted to President Willard, and £240 to each of the professors, to cover the period since the previous grant in 1784.

In 1782 Medical Professorships were established, and the first foundations were laid for the Medical School.

In that year, Dr. John Warren, of Boston, was chosen professor of Anatomy and Surgery, and Dr. Benjamin Waterhouse professor of the Theory and Practice of Physic; and in 1783, Dr. Aaron Dexter was made professor of Chemistry and *Materia Medica*. In 1790, the widow of Dr. Ezekiel Hersey bequeathed to the college £1,000, the income to be appropriated for the support of a professor of Anatomy and Physic. In 1793, Dr. Abner Hersey bequeathed £500 for the support of a professor of Surgery and Physic. In 1792, a bequest came to the college from William Ewing of £1,000 for the support of a professor of Chemistry. In March, 1785, the college was divested of its interest in the ferry between Boston and Charlestown, the grantees of the ferry, however, being required to pay to the college £200 per year for forty years. In 1792, when the West Boston bridge was established, provision was made for the payment to the college of an annuity of £300 which sum was later reduced to £200, for forty years. In 1794, the grant of a lottery made some years before for the purpose of erecting another hall was renewed. In 1804, the amount realized from the lottery became sufficient to go on with the building. The present Stoughton Hall was completed in 1805 at an expense of \$23,700, of which the sum of \$18,400 was derived from the lottery.

After the death of President Willard, Samuel Webber was chosen president, and was inaugurated May 6, 1806. Mr. Webber was born in Byfield, Mass., in 1759, and removed with his father to Hopkinton, N. H., at an early age. He graduated at Harvard in 1784, and was a tutor at Harvard from 1787 to 1789. In 1789 he was appointed professor of Mathematics and Natural Philosophy, and continued in office until chosen president. His death occurred while president July 17, 1810. In 1804, the Boylston professorship of Rhetoric and Oratory was established with funds bequeathed by Nicholas Boylston, and John Quincy Adams was chosen professor. In 1805, a number of Boston citizens subscribed about \$30,000 to establish a professorship of Natural History, and William Dandridge Peck was appointed professor. In 1805, officers, called proctors, were first appointed. In 1806, another lottery was granted, and in 1813 Holworthy Hall, named in honor of Sir Matthew Holworthy, an early benefactor of the college, was completed at a cost of \$24,500. In March, 1810, an act was passed by the General Court changing the constitution of the board of overseers and making it consist of the governor, lieutenant-governor, council, the president of the Senate and speaker of the House of Representatives and the president of the college with fifteen members of congregational churches and fifteen laymen. In June, 1810, Samuel Dexter, of Mendon, Mass., bequeathed \$5,000 to the college "to promote a critical knowledge of the Holy Scriptures."

In August, 1810, John Thornton Kirkland was chosen president, to succeed president Webber, and was inaugurated on the 14th of November. Mr. Kirkland, son of Samuel Kirkland, was born at Little Falls, New York, in 1770, and graduated

at Harvard in 1789. He was tutor at Harvard from 1792 to 1794, and after studying theology, was ordained pastor of the church on Church Green, Summer street, Boston, in 1794. He continued in the presidency until his resignation, April 2, 1828. In 1812 the act of March, 1710, concerning the constitution of the board of overseers was repealed. In February, 1814, the act of 1812 was repealed, and the senate was added to the board, as constituted by the act of 1810. In February, 1814, an act was passed by the General Court "for the encouragement of literature, piety, morality, and the useful arts and sciences," by which a bank tax was appropriated for ten years for the benefit of Harvard, Bowdoin and Williams Colleges. Part of this sum was expended in reducing tuition fees, and the sum of \$21,400 was applied to the erection of a building in Boston for the Medical School.

In 1814 University Hall was built, and after that time for many years public worship was conducted in the chapel in that building. In 1815 a fund was raised by subscription for the establishment of a "society for promoting theological education in the college," and thus what has been known as the divinity school was established. In 1826 Divinity Hall was erected. In 1814 the sum of \$20,000 was given by Samuel Eliot to the college to found a professorship of the Greek language and literature, and in February, 1815, Edward Everett was made professor. In 1815 the Royall professorship of Law was established under the will of Isaac Royall, and in 1816 Isaac Parker was chosen professor. In 1817 a Law School was established under the direction of Asahel Stearns, university professor of Law. In 1829 Nathan Dane, with a gift of \$10,000, laid the foundation of another professorship of Law, and Joseph Storey was chosen Dane Professor of Law in Harvard University. In 1831 Mr. Dane gave \$5,000 towards the fund for the erection of the Dane Law College, which was completed in 1832.

After the resignation of President Kirkland the presidency remained vacant until January, 1829, when Josiah Quincy was chosen president, and was inaugurated on the 2d of June. He continued in office until his resignation, August 27, 1845. Mr. Quincy was descended from Edmund Quincy, who was born in Wigsthorpe, England, in 1602. He was the son of Josiah and Abigail (Phillips) Quincy, and was born in Boston, February 4, 1772. He graduated at Harvard in 1790, and studied law with William Tudor, of Boston, where he was admitted to the bar in 1790.

In 1804 he was a state senator, and from 1805 to 1811 a member of Congress. From 1814 to 1821 he was again senator, in 1822 speaker of the Massachusetts House of Representatives, and in the same year was appointed judge of the Municipal Court of Boston. In 1820 he was a member of the Massachusetts Constitutional Convention, and from 1823 to 1828 mayor of Boston. He died at Quincy, July 1, 1864. In 1839 a Professorship of Ancient and Modern History was established from funds bequeathed by John McLean, and Jared Sparks was appointed professor. In the same year funds were raised by subscription to secure the appointment of William Cranch Bond as astronomical observer to the university, and Mr. Bond transferred all his astronomical, meteorological and magnetic apparatus to Cambridge, where suitable buildings were erected by the college for his use. In 1840 the Society of the Alumni was organized. The Phi Beta Kappa Society, which was established in 1781, only included the leading scholars in each class, and its annual celebrations were so successful that the movement was initiated to form a society to include whole classes without distinction.

Under the presidency of Mr. Quincy the project was started and carried out of erecting a new library building. When Harvard Hall was burned in 1769 the library contained five thousand volumes. In 1794 it contained twelve thousand; and in

1840 the libraries of all the departments of the college, including the students' societies, contained more than fifty thousand. The Theological Library contained seven hundred; the Medical, one thousand; the Law, sixty-one hundred; the University, thirty-nine thousand one hundred and sixty-one; and the society libraries, forty-five hundred. To the munificence of Christopher Gore the erection of Gore Hall, the present library building, is due. Mr. Gore died in 1820, and after having during his life given many valuable books to the college, he bequeathed by his will, "all the rest and residue of his estate, real, personal or mixed, not therein before devised to his wife and which should remain after her decease, and subject to the legacies and annuities therein devised and bequeathed to the President and Fellows of Harvard College and their successors forever, to and for the use of the university in Cambridge, and for the promotion of virtue, science and literature in said university." It was determined by the corporation to apply a portion of the bequest to the erection of a new library building, and on the 25th of April, 1838, the foundation of Gore Hall was laid, and the structure was in due time completed.

Until 1834, it was necessary under the law, that clergymen, to be eligible to the board of overseers, must be Congregationalists. In that year an act was passed and accepted by the college government in 1843, making clergymen of all denominations eligible. In 1851, another act was passed changing the organization of the board, and making it consist of the governor, lieutenant-governor, president of the Senate, speaker of the House of Representatives, the secretary of the Board of Education, the president and treasurer of the college, together with thirty other persons defined and described. The act divided the board into six equal classes, to be elected, and to go out of the board in rotation. The thirty persons above referred to, were to be divided into three classes of ten each, by agreement or lot, those of the first class going out of office on the day of the next annual meeting of the General Court, and their places to be supplied by joint ballot of the senators and representatives, and so each class going out in order and their place supplied. It was further provided that when the board was wholly renewed it should be divided into six classes by subdivision of the previous classes into two each, according to lot or otherwise, as the board might determine; and further, that no member of the General Court should be eligible, and that no person should be re-eligible for more than one term immediately succeeding that for which he was first elected. In 1865, still another act was passed, fixing the constitution of the board. It provided that the board should therefore be supplied by ballot, by such persons as had received a degree of Bachelor of Arts, or Master of Arts, or any honorary degree, voting on commencement day in Cambridge, such election to be first held in 1866, provided that no member of the corporation and no officer of government on instruction in the college should be eligible as an overseer or entitled to vote in the election of overseers, and provided further that no person receiving from the college the degree of Bachelor of Arts should be entitled to vote for overseers before the fifth annual election after the graduation of his class. The governor, lieutenant-governor, president of the senate, speaker of the House of Representatives and secretary of the Board of Education were omitted from the board by this act. In 1880 an act was passed, providing that persons, not inhabitants of Massachusetts and otherwise qualified, should be eligible as overseers.

On the 5th of February, 1846, Edward Everett entered the presidency as the successor of President Quincy, and continued in office until his resignation February 1, 1849. Mr. Everett was the son of Rev. Oliver Everett, pastor of the new South Church in Boston, from 1782 to 1792, and was born in Dorchester, Mass., April 11,

1792. He graduated at Harvard in 1811, and in 1813 was settled as pastor of the Brattle Street Church in Boston, succeeding Rev. Joseph S. Buckminster. He was Latin tutor at Harvard from 1812 to 1814, and in the latter year was appointed professor of Greek Literature under the gift of Samuel Eliot and continued in service until 1826. In 1824 he was chosen member of Congress and served ten years. In 1835 he was chosen governor of Massachusetts and was three times re-elected. Under the administration of Harrison and Tyler he was appointed minister to England, and while abroad received the degree of D.C.L. from Oxford and LL.D. from Cambridge and Dublin. After completing his term as president of the College, he was made secretary of state by President Fillmore to succeed Daniel Webster, and in 1853 was chosen by the legislature of Massachusetts United States senator. In 1860 he was the candidate of the Constitutional Union Party for vice-president on the ticket with John Bell, of Tennessee, for president, and died in Boston, January 15, 1865.

During the administration of President Everett, the scientific school was founded by Abbott Lawrence in 1847, and in 1848 Louis Agassiz was appointed professor of Zoology. The gifts of Mr. Lawrence to the scientific school amounted to one hundred thousand dollars. Mr. Everett, while at Cambridge, lived in the Wadsworth house and was its last presidential occupant.

Jared Sparks succeeded Mr. Everett as president, and served from February 1, 1849, to February 1, 1853. Mr. Sparks was born in Willington, Conn., May 10, 1789, and graduated at Harvard in 1815. He was a tutor in Mathematics and Natural Philosophy at Harvard from 1817 to 1819, and the latter year was settled as pastor of the Unitarian Church in Baltimore. In 1821 he was chaplain of the National House of Representatives, and from 1824 to 1831 was the editor of the *North American Review*. He was professor of Ancient and Modern History at Harvard from 1838 to 1849, when he was made president. He died in Cambridge, March 14, 1866.

During the administration of President Sparks the Phillips Professorship of Astronomy was endowed in 1849, and the Professorship of Zoology was further aided.

After the resignation of President Sparks James Walker succeeded him as president, and served from February 10, 1853, to January 26, 1860. Mr. Walker was born in Burlington, Mass., August 16, 1794, and graduated at Harvard in 1814. In 1818 he was settled as pastor of the Unitarian Church, in Charlestown, Mass., and in 1839, after a pastorate of twenty-one years, was appointed Alford Professor of Natural Religion, Moral Philosophy and Civil Polity, and served until his election to the presidency. Under his administration Francis C. Gray bequeathed, in 1858, fifty thousand dollars to the college for the establishment of a Museum of Comparative Zoology, and in 1859 the legislature gave for the same purpose one hundred thousand dollars from the proceeds of sales of public lands. A further sum of \$71,125 was raised by subscription.

Cornelius Conway Felton succeeded President Walker February 16, 1860, and remained in office until his death, which occurred in Chester, Penn., February 26, 1862. Mr. Felton was born in West Newbury, Mass., November 6, 1807, and graduated at Harvard in 1827. In 1829 he was appointed Latin tutor, in 1830 Greek tutor, in 1832 College Professor of Greek, and in 1834 Eliot Professor of Greek Literature, holding the last position until his accession to the presidency. During his short term The Bussey Institution was founded by James Bussey, in 1861, who gave by his will to the college land valued at, \$413,000, one-fourth of the income of which was to be applied to the Divinity School and one-fourth to the Law School.

Thomas Hill succeeded President Felton, and served from October 6, 1862, to September 30, 1868. Mr. Hill was born in New Brunswick, New Jersey, January 7, 1818, and in 1830 was apprenticed to a printer, and afterwards to an apothecary. He graduated at Harvard in 1843, and at the Harvard Divinity School in 1845, in which latter year he was settled as pastor of the Unitarian Church in Waltham, Mass. In 1859 he was chosen president of Antioch College in Ohio, and served in that office until his accession to the presidency of Harvard. He was later settled as pastor of the Unitarian Church in Portland, Maine, and died in Waltham November 21, 1891. During his administration the legislature appropriated \$75,000 to aid in the enlargement of the Zoological Museum, and the Peabody Museum of American Archaeology and Ethnology was founded by George Peabody in 1866, and the Dental School was organized in 1867.

President Hill was succeeded by Charles William Eliot, the present president, May 19, 1869, and no period in the history of the college has been marked by the brilliant and progressive spirit which has characterized Mr. Eliot's administration. Mr. Eliot is the son of Samuel Eliot, of Boston, and was born in that city, March 20, 1834. He was fitted for college at the Boston Latin School, and graduated at Harvard in 1853. From 1854 to 1858, he was tutor in Mathematics, and 1858 to 1861, was assistant professor of Chemistry. The two years from 1863 to 1865, he spent in Europe, and on his return he was appointed professor of Analytical Chemistry in the Massachusetts Institute of Technology at Boston, in which position he remained until his election to the presidency of Harvard. In 1869 he received the degree of L.L.D., from Williams and Princeton, and in 1870 from Yale. His presidential term has been so full of incidents illustrating the material and educational prosperity of the college, that it will be impossible to state them within the prescribed limits of this narrative. The future historian of Harvard following in the footsteps of Pierce and Quincy will find ample material for a volume in the quiet unostentatious, but yet brilliant achievements of President Eliot.

During his administration Memorial Hall has been built at a cost of more than \$300,000, and was dedicated July 23, 1874. Thayer Hall, given by Nathaniel Thayer, was built in 1870; Holyoke Hall was built in 1871; Matthews Hall, given by Nathan Matthews, and Weld Hall, given by Welham F. Weld, were built in 1872; Hastings' Hall, given by Walter Hastings, was built in 1889; a new law school was built in 1883, Sever Hall, given by James W. Sever in 1880, and a new medical school building in Boston was erected in 1883. In 1873 John Anderson, of New York, gave to the trustees of the Agassiz Museum one of the Elizabeth Islands, together with the sum of \$50,000 to found a summer school of Natural History. In 1879 a professorship of Agriculture was founded, and in 1882 the veterinary school was organized. The gifts which have been made to the college during his administration have been too numerous to mention. They have been made both by those who wish to show their gratitude to their *alma mater*, and by those who, not having had the advantages of a liberal education, are determined that, so far as their influence and means extend, others shall enjoy what they lacked themselves.

CHAPTER CL.

WILLIAMS COLLEGE.

BY REV. EBEN BURT PARSONS, D.D.

Secretary of the Faculty.



WILLIAMS COLLEGE is in Williamstown, the northwestern town of Massachusetts. The town and the college were named after Colonel Ephraim Williams, who had command of the forts in the Hoosac Valley during and following the Five Years' War with the French and Indians near the middle of the eighteenth century.

The town is shut in by an irregular circle of mountains, the ranges and spurs of the Green Mountains, which separate the town from the rest of the state, and the Taconic hills, which form the boundary between Massachusetts and New York. The streams, gathering from these mountain slopes, form the Hoosac River, which found or forced a passage through the mountains and reached the Hudson Valley twenty miles away.

This pass through the hills, called the Golden Gate during the later years, located the forts as the forts located the town and the college. The crafty hostiles, working their stealthy way down the Champlain and Hudson valleys and through this passway of the Hoosac, brought dread and death into all western Massachusetts. At this "Thermopylæ," as Edward Everett called it, there was established a military outpost, and Colonel Ephraim Williams was put in command.

When hostilities increased, he gathered an army for aggressive warfare. On his way to meet the northern enemy he stopped at Albany and made his will, leaving his property for a free school to be built at or near his fort overlooking the Hoosac Valley. Pushing northward with his little army he was killed near Lake George, September 8, 1755, as he bravely led his troops into battle.

The small amount of property left by Colonel Williams was carefully managed by his executors till they were able to build for a free school what is now called West College, a notable building for those times, a brick structure eighty-two feet by forty-two, with walls almost like a fort, four stories high and crowning a hill that overlooks much of the adjacent country.

The free school was so much in demand that the state gave it a charter as Williams College in 1793 and donated four thousand dollars for the purchase of books and philosophical apparatus. The college was put into the care of trustees, who elected the preceptor of the free school as the first president of the college, fixed the terms of admission, and named the first Wednesday of September as commencement day. The candidate for admission "must be able accurately to read, parse and construe, to the satisfaction of the president and tutor, Virgil's *Æneid*, Tully's *Orations*

and the Evangelists in Greek," or, if preferring to become acquainted with French, he "must be able to read and pronounce, with a tolerable degree of accuracy and fluency, some approved French author." In 1795 a catalogue was printed with the names of seventy-seven students. This is believed to be the first college catalogue printed in this country.

The immediate success of the new enterprise induced the state to grant two townships of land in Maine for another building. This land was sold for \$10,000, and in 1797 East College was built, somewhat larger than West, and upon the other commanding elevation. This second building marked the bounty of the state as the first school for individual beneficence. These two buildings served all the purposes of the college for many years.

During the twenty-one years for President Fitch's administration the yearly average of graduates was twenty-two. Students came mostly from the adjacent sections of the three states that meet at the northwestern corner of the township. The teaching force of this administration, in addition to the multiform services of the president himself, consisted of three professors and thirty-nine tutors. The special features were the prominence at the outset given to French, and during all the time given to the natural sciences. About midway of this administration, in the summer of 1806, was the so-called Haystack prayer meeting which was the beginning of the American foreign missionary activity. On the whole, this administration was successful, though the later years of it were somewhat troubled by the disaffection and lack of students.

Passing over the trying years, during which President Moore vainly sought to remove the college to Amherst, we come to the administration of President Griffin with its fifteen years of arduous service and noteworthy success. He secured money for the building that bears his name. It enclosed recitation rooms and a pleasant chapel. In the emergency that opened his administration, the alumni formed an association, the first in the country to bring organized help to the college. This society, through the courtesy of the board of trustees, has the election of five members of that body. During this administration the yearly average of graduates was twenty-one. The rise of other colleges had somewhat restricted the field. The characteristic feature of this period was the religious influence of the head of the college. Nearly one-half of the graduates under President Fitch became lawyers; more nearly one-half of the graduates under President Griffin became clergymen. This influence culminated in the class of 1827, which graduated thirty men, twenty-three of whom became clergymen.

Presidents Fitch and Griffin were graduates of Yale. Upon the resignation of the latter, Mark Hopkins, a graduate of Williams in the class of 1824, was elected to the presidency, and was inaugurated in 1836. The early period of his administration brought marked material advance in the college equipment. His brother, Albert Hopkins, by special effort and largely at personal expense, built the first astronomical observatory in this country. On the same campus, after the burning of East College in 1841, the present buildings, called East and South, were erected. Several men of large benevolence interested themselves in the college, and gave Jackson Hall, Kellogg Hall, and Lawrence Hall. The last structure, with wings added in 1890, has been the useful library building, which now holds forty thousand bound volumes and fifteen thousand pamphlets. The state added to their former gifts \$25,000 in 1859, and \$75,000 in 1868, making in all over \$150,000. The Alumni Hall Chapel was built in 1859, and Goodrich Hall in 1864.

The teaching force of this period was a vigorous one, and is now influential in

the lives of the mature men who now represent the college in every calling and country. Dr. Hopkins resigned the presidency in 1872, but continued service in Philosophy till his death, in 1887. During the thirty-six years of his administration there was an average yearly graduation of forty-one men. For half a century he made mental and moral philosophy the attractive centre of college life. His associates in the faculty were also men of mature and robust scholarship, "rich and luminous souls," as another has pictured them, and nearly all of them graduates of the college.

Dr. Hopkins had fixed upon his seventieth year as the time for resigning the presidency. Accordingly, Prof. Paul A. Chadbourne, class of 1848, was elected president and inaugurated in 1872. That year the trustees, aided by the alumni, built and furnished College Hall as a boarding-house for the students. In 1882, Mr. Edward Clark, class of 1831, built a fine structure of stone to hold the minerals which he had previously purchased for the college. The teaching force was not greatly changed under the new administration. During these nine years there was a yearly average of thirty-four graduates.

In 1881 Dr. Chadbourne resigned the presidency, and the alumni and other friends of the college joined the trustees in naming the new president, and Franklin Carter, a graduate of the college in 1862, the professor of Latin and French in it for several years, and the professor of German in Yale from 1872 to 1881, was elected president, and was inaugurated July 6, 1881. This administration has seen a great enlargement of all the resources of the college. The president gave immediate attention to the financial needs of the college and the raising of \$100,000 was a happy turning point in the material affairs. In 1882 the Field Memorial Observatory, with its fine meridian circle by Repsold, was opened for the advanced study of astronomy, which has held a prominent place in the curriculum and is the only department in which the doctorate of philosophy can be secured. In 1882 ex-Governor Morgan, of New York, built a noble edifice of the native stone of the region at a cost of nearly \$100,000. In 1883 Mr. Jermain endowed the professorship of natural theology. The same year Mr. H. T. Morgan gave a liberal sum to aid students who need pecuniary help. In 1886 the Lasell family, at the cost of \$50,000, furnished one of the best gymnasiums in the state. It is of the native stone and furnished with all the appliances for harmonious physical development. That same year Mr. Field presented the college with an art collection, which finds an appropriate place in the library extension. The next year Mr. McCoskry endowed the professorship of Physics. In 1888 Mr. and Mrs. Miller endowed the professorship of American History and Eloquence. In 1889 the alumni, under the generous lead of Mr. Thompson, class of 1836, built the Memorial for Dr. Hopkins in an executive and recitation building, a handsome structure of stone and pressed brick, costing nearly \$100,000. And, beginning in 1890 Mr. Thompson crowned his large previous benevolence by the erection and equipment of three laboratories at a cost of \$200,000. Other liberal friends of the college contributed to the various departments of the college, and the president was able to raise more than \$1,000,000.

The number of students and the teaching force of the college under Dr. Carter's administration have kept pace with the material prosperity. But no essential change has been made in the general aim of the institution. It remains a college and has no ambition to be a university. A fixed curriculum holds the earlier years and a wise election is added when the student advances in his course, so that the training of well-tried methods may have whatever of increased efficiency new opportunities and experience may afford.

Williams College has had five worthy presidents in its life of a century, and with diversified gifts they have all held one uniform purpose to maintain a Christian college, a college in which every student should have the direct and personal instruction of a mature teacher and a Christian gentleman. When President Garfield, class of 1856, said that a log in the woods, with a seat at the one end for Dr. Hopkins and a seat at the other end for himself, was a college good enough for him, he expressed not only high esteem for a great teacher, but also his appreciation of personal, direct, individual influence.

The number of students now, 1897, on the catalogue is three hundred and eighty-five, and the number of instructors is twenty-eight, giving an average of thirteen pupils to each teacher. The entering classes now average one hundred, which is about the wise limit for the present force of the college, and the college is aiming at the ideal presented by Dr. Carter in his address of inauguration: "To develop the love of learning and the love of wisdom, to have in this beautiful valley a group of self-denying, ardent scholars teaching a body of gentlemanly and earnest youth and guiding them into self-direction and the search for truth for its own sake, to have teacher and taught, inspirer and inspired, all moving in peace and self-denial under the potential attraction of the light of the world following the footsteps of the perfect leader, how lofty an ideal!" While this ideal is upheld Williams College will have its place among the educational forces of the state.

AMHERST COLLEGE.*

Amherst College, located at Amherst, Mass., was founded in 1821 as a "charity institution," especially for the training of candidates for the ministry. It was chartered under its present name in 1825, and was very successful from the first. Within a few years of its rise its students outnumbered those of Harvard, Yale alone of all New England Colleges, showing more. It has always been, as it is now, the largest strictly collegiate institution for men in the United States, being surpassed only by the universities or by colleges having graduate departments. For the last twenty years the number of students has ranged from three hundred to four hundred and fifty. Beginning with a fund of \$50,000, raised by subscription, the college has constantly gained in resources, until its property in funds, buildings and equipment is estimated at nearly \$2,000,000.

In so brief a sketch as the present, the most that can be attempted is merely to point out a few of the salient points in the career and policy of the college. It was the first college to make physical training a part of the required exercises. Since 1860 such training has been given every student, and with the most marked results. Under the old regime the health of the students, as shown by statistics, regularly declined from the freshman year to the senior, while of late years the process is exactly reversed. The influence of Amherst's example in this department of college work has been powerful throughout the educational world.

Amherst made an early response to the demand for scientific culture. President Hitchcock (1844-54) was one of the leading scientists of his day, and gave a great impetus to the scientific side of the college work, and at the present time the course leading to the degree of B. S. is fully on a par with that leading to B. A.

To philosophy and political science the college has also given special attention, under such leaders as Professor (afterwards President) J. H. Seelye, Professor C. E. Garman, Professor J. W. Burgess and Professor J. B. Clark. The effect of the ex-

* By W. I. Fletcher.

cellent work done in these lines is shown by the marked success of Amherst graduates in the pulpit, in reform movements, and in prominent educational positions.

Literature has also received special attention. The library of the college, now containing nearly 70,000 volumes, has been made perfectly open to the students, and has been used by them with great freedom. It has always been the aim of the college to make independent thinkers as well as self-reliant, well-poised men of its students, and to this end they have been allowed perfect freedom in the use of books. Quite naturally, graduates of the college are found among the leading librarians and literary men of the country.

Of the four thousand graduates, over one-third have gone into the ministry, and of these about one hundred have become foreign missionaries. In Turkey, in India, in Japan, in Hawaii, they have been leaders in Christian civilization and in education. J. H. Neesima, the founder of the Doshisha College in the latter country, was an Amherst man; as are the venerable Dr. Elias Riggs, in charge of the Bible House in Constantinople, and scores of others in like positions of influence and power.

Dr. H. N. Barnum, of Harpoot, Rev. R. M. Cole, of Biblis (both doing valiant service in the present critical time in the east.)

The presidents of the college have been : Zephaniah Swift Moore, 1821-23; Heman Humphrey, 1823-45; Edward Hitchcock, 1845-54; William A. Stearns, 1854-76; Julius H. Seelye, 1876-90; Merrill E. Gates, 1890 to the present time.

Among the more prominent graduates may be named: Henry Ward Beecher, Richard S. Storrs, C. H. Parkhurst, Roswell D. Hitchcock, Alexander H. Bullock, Francis A. Walker, Galusha A. Grow, Francis A. March, William S. Clark, George Howland, William S. Tyler, Charles M. Pratt and W. F. Slocum.

In the Civil War Amherst was represented by one hundred and sixty-nine graduates and seventy-eight undergraduates, thirty-four of whom sacrificed their lives to their country, among them a son of President Stearns.



CHAPTER CLI.

WELLESLEY COLLEGE.



ABOUT the middle of the seventh decade of the present century, Henry F. Durant, of Boston, conceived the purpose of establishing and endowing some philanthropic educational institution. Reflection convinced Mr. Durant that the fittest object of his beneficence would be the education of women, since he saw the training of the youth of the country intrusted largely to women, in spite of the fact that few opportunities of any but the most rudimentary education were open to their sex. He resolved to found a school which should offer to women exclusively what the older foundations were for the most part offering to men alone, and which should surround its students with the highest religious influences. The idea of the college, as it now actually exists, was slowly evolved. In March, 1870, it was enacted by the General Court of Massachusetts that "William Claflin, Edwin N. Kirk, Abner Kingman, their associates and successors, be made a corporation by the name of Wellesley Female Seminary," with permission to hold real and personal estate to an amount not exceeding \$600,000. In 1873, by an act of the same body, the name was changed to Wellesley College, but not until 1877 did the corporation put the seal of complete organization and definite relations upon the new enterprise by securing authority to "confer such honors, degrees, and diplomas as are granted or conferred by any university, college, or seminary of learning in this commonwealth." By an additional enactment, in 1894, the college was authorized to hold real and personal estate to an amount not exceeding \$5,000,000.

The college receives its name from the village in which it is located, Wellesley, fifteen miles from Boston, in Norfolk county. The site for the first building was an eminence near a small lake in the midst of a beautiful estate, extended by Mr. Durant through various purchases into a park of three hundred acres. This building contained what was then the entire equipment of the college, together with rooms for about three hundred persons. Its plan is that of a double Latin cross 475 feet in length by 165 feet in extreme width; it is built of brick and is four stories high, with mansard roof and freestone trimmings. The whole expense of building, furnishing and equipping was paid by Mr. Durant out of his private estate.

Miss Ada L. Howard, a former teacher in Mount Holyoke Seminary, was the first president. Of the three hundred students in attendance at the opening of the first term, but fifty-eight were fitted for college studies, and until 1881 Wellesley was encumbered by a preparatory department. From the beginning the standards of admission were steadily raised. It may safely be said that for the past twelve years the entrance requirements of this college would bear comparison with those of the foremost New England colleges. In June, 1879, the first commencement was held, and the degree of B. A. was conferred upon eighteen young woman.

In 1882 President Howard resigned her office on account of ill-health, and Alice E. Freeman (Palmer), a graduate of the University of Michigan and for some years professor of History in Wellesley College, was appointed in her stead. The new president entered upon her duties at a recognized crisis. The death of Mr. Durant occurred some months before. Nominally in no official connection with the college other than that of a trustee, Mr. Durant had been actually the chief executive, and the centre of the intellectual life of the institution which his bounty had created. The success of this young and comparatively inexperienced woman was from the first all but unexampled. With masterly comprehension of end and means, she brought Wellesley into line with American colleges of the first rank. "During her brief administration the college gained rapidly in numbers, range of work, intellectual rank, efficiency of organization and popular favor." The library, first endowed by Mr. Durant from his own choice private collection, was again endowed by Mr. E. M. Horsford, of Cambridge, who established funds not only for the permanent support of the library, but also for a Sabbatical grant for the benefit of fourteen professors and the librarian. The degree of M.A. was conferred for the first time in 1882. This period in the history of the college was closed in 1887 by the marriage of the president to Professor George H. Palmer, of Harvard University.

Helen A. Shafer, a graduate of Oberlin College, and from 1877 professor of Mathematics in Wellesley College, was appointed president in 1888, and remained in office until her lamented death, January 20, 1894. Her administration was marked by a steady increase in students, and by a constant enlargement in opportunities offered. A notable event was the establishment of a new curriculum. Instead of the two courses, scientific and classical, which the college had from the first offered to candidates for the Bachelor's Degree, it was proposed to substitute a single course leading to one degree, that of B. A., and offering the widest election consistent with the pursuance of certain subjects deemed essential to all culture, and with the continuous study of one or two subjects for the sake of the mental discipline and breadth of view which belong to higher attainment. In a word, it was proposed to plan a course which should secure all the advantages of liberty, without the dangers of license. The final adoption of a curriculum, which should meet these ends, was an achievement worthy of the wise, just and able executive, who steadfastly urged the work on to its successful conclusion. At present, fifty-nine hours of work constitute the general requirement for the B. A. degree; that is, a schedule allotting to the individual student fourteen class-room appointments a week for the freshman year, and fifteen for each of the three years following. Of this work a little more than one-third is prescribed as to subject—mathematics, language, natural science, philosophy, English composition, Bible study, physiology and hygiene. The rest of the work is elective, subject to the condition that six courses be taken in pursuance of one, or, at most, of two lines of study, thus insuring a somewhat thorough and persistent investigation of a chosen subject or subjects. Julia J. Irvine, professor of Greek, became president in 1894, and has remained in office to the present time.

To the one building, which originally served all purposes, academic and dormitory, eleven others have since been added through gifts from Mr. and Mrs. Durant, and from other friends of the college. Four of these accommodate especially work in Art, Music, Chemistry and Botany. Stone Hall and seven cottages are mainly for dormitory purposes. Through the liberality and filial devotion of Miss Elizabeth G. Houghton and Mr. Clement S. Houghton a new chapel is shortly to be erected at a cost of \$100,000. The faculty number seventy-five; the students, seven hundred and twenty-four. The calendar for 1896-97 describes twenty-three departments,

offering in all two hundred and nine courses of study. The study of the Bible, which, from the foundation of the college, has remained, absolutely required of all students, is now expanded into the department of Biblical History, Literature and Interpretation, offering twelve courses, with instructors who are specialists in the subject.

Mrs. Pauline A. Durant, the able and accomplished wife of the founder, became treasurer of the college at Mr. Durant's death, in accordance with his request. She resigned the office in 1895, and Alphens H. Hardy, of Boston, was appointed thereto. The financial history of Wellesley is unique. The college is practically without endowment. The gifts of Mr. E. N. Horsford, and other and much smaller funds, are for certain distinct purposes. The residue of his estate which Mr. Durant bequeathed to the eventual use of the college, has suffered such depreciation that it can no longer be counted upon. But \$7,000 can be reckoned as belonging to a general endowment fund.

Wellesley College is strictly undenominational. Attendance upon morning prayers is required of all students. The Sunday service is conducted by preachers of various denominations. An important feature of the religious life of the college is a Christian Association, officered from both faculty and students. This society holds meetings on Thursdays and Sunday evenings, and brings the college into relation with a wide range of religious and philanthropic work. The Beethoven Society, a choral society established many years ago, still has a large membership. Seven other societies are for the promotion of interest in literary and social questions. The library now numbers 47,200 volumes. Numerous trains and an electric road add the libraries, art collections, and other resources of Boston and Cambridge, also the study of historic sites and of marine life, to the opportunities of students at Wellesley.


The importance of physical training has not been overlooked. Owing to lack of funds it has not been possible to put up a new gymnasium with all the modern appointments. The present gymnasium is small and inconvenient: but it is well outfitted for the course of Swedish gymnastics required of all students. Opportunity is made also for various special courses of training. Two thoroughly equipped health officers are in general charge of the physical condition of students. These health officers, the director of physical training, and the professor of elocution, constitute a board of health, to which special questions of individual or general health are referred. Three hospital wards are provided. An emergency ward for serious or contagious disease has also been fitted up in an isolated building. The ample grounds of the college afford full scope for all kinds of outdoor sports and pleasures. In the season rowing attracts the largest numbers. Tennis, golf and basket-ball make the campus a scene of activity until the winter sports begin. At all seasons walks and drives of exceeding beauty abound.

In the use of the natural and acquired advantages of Wellesley it is evident that the management of the college has not lost sight of the great principle of its founder, as expressed in his own words:

"The one great, true ideal of higher education which the noblest womanhood demands, is the supreme development and unfolding of every faculty and power. It is the ideal of the highest learning in full harmony with the noblest soul."

CHAPTER CLII.

BOSTON UNIVERSITY.

OSTON UNIVERSITY was chartered by the Legislature of Massachusetts in the year 1869. In 1883 it received an additional charter from the state of New York. Its original incorporators were Isaac Rich, Lee Claflin and Jacob Sleeper, the first of whom left to it by will over one million dollars. The name and location of the new institution predetermined in important respects its character. Established in the heart of the metropolis, with one-third of the population of New England within easy reach of its halls, it could meet the just expectations of the public only by becoming a metropolitan university of the most advanced and comprehensive and liberal type. The founders were even more desirous than the public that the great opportunity should not be lost. Accordingly, after a careful study of all existing types of university organization and an equally serious study of the local and historic conditions, they adopted a plan of organization, differing in important respects from any before exemplified in New England or elsewhere. This plan is fully set forth and illustrated in a publication entitled "The Origin and Progress of Boston University."

At the date of the chartering of the university, each of its three original corporators, now called founders, was a corporation officer and influential patron of the Boston Theological Seminary. It was only natural that they should desire to see the seminary transferred to the university and adopted as its School of Theology. Accordingly, the trustees of the seminary, after procuring the consent of the patronizing clerical conferences and an enabling act from the Legislature, transferred and, upon certain accepted conditions, legally conveyed to the trustees of the university the school maintained by them, together with all the property and trusts belonging thereto. This gave to the university, as its first department, the largest theological school in New England and one of the largest in the country. The property transferred amounted to a little less than a quarter of a million dollars. Ninety-four students were in attendance at the time, and the former graduates of the seminary, two hundred and thirty-five in number, were adopted as alumni of the university. In this way, while the university itself dates back no further than 1869, its first department is in possession of a history which goes back to 1839. The department is also interesting as being the oldest theological seminary of the Methodist Episcopal Church, and the first ever opened without discrimination to women as well as men.

Viewed with respect to the progress of theological education in America, several facts deserve mention in this place. It is not generally known that this school was the first in the country to make the historic, systematic and philosophic study of the religions of all peoples and of all ages an integral and permanent part of the theo-

logical curriculum. It makes a like claim with respect to the systematic and comprehensive study of Christian missions.

The School of Law was opened in October, 1872. In first arranging for the new department the trustees invited the Hon. Edmund H. Bennett, LL.D., to the deanship, but owing to temporary ill-health he could not accept. The choice then fell on the brilliant and learned George Stillman Hillard, and a fortunate one it was.

Mr. Hillard was singularly favored alike in personal gifts and in his associations. Among his schoolmates there were many who afterwards achieved renown. Yet both in the Boston Latin School and in Harvard College he easily carried away the highest honors. He had as a college classmate Robert C. Winthrop; as a colleague in teaching, George Bancroft; as a law partner, Charles Sumner; as intimate and life-long friends and associates, George Ticknor, Daniel Webster, Rufus Choate, Edward Everett, Henry W. Longfellow, Oliver Wendell Holmes and all that galaxy of scholars, orators and poets which made the middle of this century a kind of golden age in American letters. In elegant scholarship, in appreciation of art, in oratorical finish, in brilliancy of conversational power, he was at least the peer of any one of this rare company.

Longfellow said of him: "He was absolutely unrivaled in fluency of speech, in beauty of diction, in suggestiveness of thought, and as to his power of memory." The last great work of his life was his part in the organization and early administration of the School of Law. During the two years that the school was under his wise care, it gained a position and character which ensured its remarkable subsequent growth. His personal interest in the individual students won for him an affectionate esteem as universal as it was deserved.

The professors and lecturers whom the trustees secured for the school constituted a group of singular eminence and ability. Among them were the Hon. Henry W. Paine, Dr. Francis Wharton, Judge Benjamin R. Curtis, Judge Edmund H. Bennett, N. St. John Green, Esq., Judge Benjamin F. Thomas, Judge Dwight Foster, Hon. Charles Theodore Russell, Hon. Edward L. Pierce, Judge Otis P. Lord, Melville M. Bigelow, Esq., and Hon. William B. Lawrence.

At the time of the chartering of Boston University the condition of the existing schools of law in this country was far from creditable. The Harvard University Law School enjoyed a higher reputation than any of the others, yet in it the entire instruction was given by three persons. Instead of offering a fixed course graded throughout according to the rational sequence of subjects, the authorities admitted students at any time, and claimed that those who were beginning the study of the law could enter upon branches suitable for them at the commencement of any term. The entire course covered but two abbreviated scholastic years. Moreover, as the president has more than once officially stated, there was at that time in the Harvard Law School no examinations whatever; students were admitted, promoted, and in the second year graduated, without ever being called on to pass a single test beyond that of duly paying the fees. In the other schools in different parts of the country the instruction offered was inferior to that given in Cambridge, and generally less in quantity. In many of them, attendance upon lectures six months and a prompt payment of fees secured the only honors they could give.

The projectors of Boston University believed it time for an advance movement. At the outset, therefore, they adopted statutes of organization providing for a course of instruction scientifically graded, and extending through three scholastic years. A few years later this good example was followed at Cambridge, and at present several other American schools are adjusted, or are about to adjust themselves to it. The

honor of pioneership in the introduction and maintenance of the three years' course, and of the rational grading of the subjects included in it, belongs to Boston University. In the summer of 1876 Judge Edmund H. Bennett was again called to the deanship, which position he has honorably and effectually filled to the present time. The attendance of the school has steadily increased until it now lacks but seven of a round four hundred.

The school of medicine was opened in the fall of 1873. A few months earlier the trustees of the New England Female Medical College—the oldest of its kind in existence—being embarrassed in their financial resources, and convinced that the school projected by the university could do for the medical education of women far more than the college, leased their building to the university trustees, and at length, with authority from the legislature, united their school with the one just organizing.

The result abundantly justified their course. Successive enlargements and improvements have been made in the buildings, the elegant new Homœopathic Hospital has risen on land adjoining; instruction in scope and variety quite superior to that of the preceding instruction has been offered and maintained. The dean of the new faculty from the beginning has been I. Tisdale Talbot, M.D., to whose energy and tact the school is greatly indebted for its growth and prosperity.

In this department also the University had the privilege of introducing important improvements. It was the first in America to introduce and maintain a four years' graded course of instruction, and the first to require the completion of a four years' course before being eligible to the degree of Doctor of Medicine.

Such radical improvements in provisions for the training of candidates for the learned professions attracted universal attention. As a consequence the newly-established professional schools were at once crowded with students. In the numbers in attendance, the young university almost immediately outranked the only two others which at that time maintained the same three faculties, to wit: Harvard and Yale. The aggregate of professional students in New Haven, Cambridge and Boston for the four years (1874-1878) were as follows:

	Yale.	Harvard.	Boston.
In 1874-75	206	351	235
In 1875-76	217	372	414
In 1876-77	191	436	440
In 1877-78	193	422	425
Totals	807	1581	1631

From which it appears that the aggregate in Boston University was fifty more than in Harvard, and was more than double the entire aggregate of Yale.

The College of Liberal Arts was opened in 1873. Its first dean was the Rev. John W. Lindsay, S.T.D., formerly president of Genesee College. Since 1882 the position has been filled by William E. Huntington, Ph.D. The growth of this department has been steady, its attendance now reaching four hundred and twenty-six. No sketch of this college would be reasonably complete without mention of the eminent service it has rendered to the profounder philosophical studies in a time of shallow and confused empiricism, and to the cause of broad and solid education in a time of narrowing but ably championed popular hallucinations respecting "special" undergraduate studies. Its stout and uncompromising opposition to all educational quackery, however labeled; its resolute maintenance of classical and

philosophical studies in full honor; its fearless leadership in new departments and methods, have given it a wide and beneficent influence in the educational world.

In the original statutes of organization of Boston University, provision was made for a College of Agriculture. The financial situation after the great fire of 1872, however, made it plain that many years would necessarily elapse before a department of this kind could be established upon an adequate foundation. It was ascertained that the trustees and officers of the Massachusetts Agricultural College, at Amherst, were willing to furnish instruction of the kind desired, and to co-operate with the University in the promotion of its aims in this direction. Accordingly, in January, 1875, the trustees of the State Institution unanimously accepted certain propositions from the University Corporation, by virtue of which the college secured an honorable alliance with the university and the university substantially an agricultural department. The articles of agreement were unanimously ratified by the trustees of the university February 11th, and were printed in the report of the college to the legislature for 1874-75. In the eighteen years which have elapsed, the alliance has greatly contributed to mutual advantage. At no time has anything occurred to mar the cordiality of the relationship, or to weaken the effectiveness of the co-operation. In the meantime, the University has directed many students to the college, and the students of the college have prized their relation to the University, and on graduation, with few exceptions, have been received into permanent membership in the University convocation.

At the Exposition Universelle at Paris in 1878, in recognition of its organization and work, the University received a bronze medal award. One of its professors received for his invention of the telephone the "grand prize of honor," besides a silver medal for improvements in the methods of teaching deaf mutes to speak. In fact, no less than six of the educational awards were assigned to members of Boston University.

The growth of the institution has been steady and healthful. The staff of instruction now numbers one hundred and thirty, the students in attendance one thousand three hundred and twenty-seven. William F. Warren, D.D., LL.D., the first president, is still in service.*

* This sketch is based upon Gary's "History of Education in Massachusetts," published by the United States Bureau of Education, a work of the highest authority.



CHAPTER CLIII.

TUFTS COLLEGE.



TUFTS COLLEGE was founded under a charter granted April 21, 1852. Like so many of the endowed colleges of the country, it owed its beginnings primarily to the need of an educated ministry, felt by an important body of Christians. Its work is, however, non-sectarian, a fact amply shown by the membership of its faculty and student body. The aim of its instruction has been always the pursuit of truth.

The movement resulting in the founding of the college was set on foot in 1847, through the efforts of the Rev. Thomas J. Sawyer, of New York, the Rev. Hosea Ballou, second, of Medford, and the Rev. Thomas Whittemore, of Cambridgeport. After much consideration, the work of raising a fund of \$100,000 for a foundation was undertaken, under the direction of the Rev. Otis A. Skinner, of Boston. About \$60,000 was obtained in money. Sylvanus Packard gave his bond for \$20,000 additional, and Charles Tufts gave twenty acres of land on Walnut Hill, embracing the present site of the college. Mr. Tufts announced his intention of increasing his gift of land to more than one hundred acres, and thus became the largest benefactor of the young institution, which accordingly received his name. Mr. Packard was a Boston merchant, who from the beginning made the college a peculiar care, and bequeathed to it his entire fortune, this being the largest gift it has yet received from a single person. Among other benefactors deserving mention, associated with those who may be styled the founders of the college, were: Oliver Dean, who gave it \$90,000; and Thomas A. Goddard, whose gifts, though unobtrusive, were constant, and whose widow has continued the generosity of her husband. Dr. William J. Walker came soon after, with gifts and bequests amounting to nearly \$300,000.

Students were first formally admitted in 1855. The only building at that time was the main college building, now known as Ballou Hall. The next building to be erected was a small brick dormitory, now the Library building. The large dormitory known as East Hall was the next addition to the group, and in 1872 West Hall was opened to students. It was ten years before building operations were renewed by the college. The original faculty numbered five. The first class, of three members, graduated in 1857.

At the outset, provision was made for a course of study leading to the degree of Bachelor of Arts. The only feature of its work peculiar to Tufts College in these years of its beginnings was the attention given to the study of history. The first president of the college, the Rev. Hosea Ballou, 2d., D.D., was likewise professor of history and of intellectual philosophy, and gave instruction in history remarkable alike for its quantity and quality, at a time when the study was hardly recognized in American colleges. Four hours a week for three years was the time assigned to

this subject in the curriculum of Tufts College, until the death of President Ballou, in 1861, when, there being no one to take up the work, it dropped from the course.

Dr. Ballou was succeeded in the presidency by the Rev. Alonzo Ames Miner, D.D., LL. D., who was inaugurated in 1862, and continued in office until 1875, resigning in February of that year. In March, 1875, the Rev. Elmer Hewitt Capen, D.D., was elected to the presidency of the college, vacated by the resignation of President Miner, and he was inaugurated on the second day of June, and still occupies that position.

Some unclassified students had always been in attendance at the college, and in 1866 the degree of Bachelor of Philosophy was offered to those who should pursue a prescribed course of two years, the object being to provide for those who had been prepared only in English subjects. This course was maintained until 1875, when it was changed to a course of four years. The requirements for admission were then made the same as for the regular course, except that Greek as a condition of entrance was omitted, and an amount of work in French or German, considerably less than its equivalent, was substituted.

The will of Mr. Packard required that a professor of Christian Theology should be maintained from the income of funds bequeathed by him. The Rev. Thomas J. Sawyer, D.D., was elected Packard Professor in 1869. This was the beginning of the Divinity School. In 1882 the school had developed so that its faculty received a definite organization and Dr. Sawyer became the first dean, retaining the office until his retirement as Packard Professor Emeritus in 1892. He was succeeded by the present dean, the Rev. Charles H. Leonard, D.D. From the erection of West Hall until the completion of the separate buildings of the school, the western side of West Hall was occupied by the Divinity School. In 1892, by the gift of Ex-President Miner, the school was provided with a convenient and handsome building, Miner Hall, containing the library, class-rooms, chapel and reception-room; and at the same time, largely through the efforts of the dean of the school, the money was obtained to build Paige Hall, a dormitory for students of the Divinity School.

The engineering courses were begun in 1869 with a department of civil engineering. The great development of electrical science was promptly recognized, and a department of electrical engineering was opened to students in 1882, a professorship in the subject being established in 1890. This side of the college work had a very rapid development, and in 1894 the field was broadened by the addition of a course in mechanical engineering. In these courses an effort has always been made to give thorough practical training. The will of the late Henry B. Pearson, founding the Bromfield-Pearson School, and putting it in the hands of the trustees of Tufts College to administer, provided a thoroughly equipped building for technical instruction, of great value in the drawing, pattern-making, machine and forge work, so important to the engineer in any branch. The Bromfield-Pearson building was completed in the fall of 1894.

In 1883 the late Phineas T. Barnum gave \$50,000 for the establishment of the Barnum Museum of Natural History, and by his last will he bequeathed \$40,000 more. The main museum building was completed in 1884. The west wing, containing the new biological laboratories, was erected in 1894. The years 1882 and 1883 saw the completion of the Goddard Chapel, a monument of architectural beauty, given by Mrs. Mary T. Goddard as a memorial of her husband, the first treasurer of the college. The Goddard Gymnasium, a gift from the same source, was also completed in 1883. Dean Hall, a new dormitory made necessary by the growth of the college, was erected in 1887 from funds bequeathed by the late Oliver

Dean. In the college year 1894-95 two new buildings were opened in addition to the west wing of the Barnum Museum. These were the Chemical Building and the Commons Hall, containing students' rooms, a dining-hall and the post-office.

The development of the college in its internal life has, however, been the notable fact of the last few years, of which the external changes have been the indications. In 1891 a new course of study, leading to the degree of Bachelor of Arts, was offered for the first time, with an entrance requirement, believed to be fully the equivalent of the Greek, in two modern languages. This was one important step taken by the college towards the broadening of its opportunities, but it soon proved to be insufficient. There had been a steady growth for many years in the amount of work done and in the number of departments of learning represented. Instead of the five members of the corps of instruction at the opening of the college in 1855, the catalogue of 1893-94 showed a body of active instructors, exclusive of the Divinity and Medical Schools, numbering twenty-seven, and offering subjects aggregating one hundred and thirteen and divided among twenty-two departments, exclusive of the Engineering Courses proper. Two new departments had been instituted in 1892, in response to the tendencies of educational development—Biology and History. In the fall of 1893 it seemed possible to take another step, and to put in operation the present plan of work, which is believed to be an approach to a rational co-ordination and connection of the college and university systems. The beneficial results, in the growth of a more earnest and scholarly spirit, have already been felt.

In this revision of requirements, provision was made for admission of graduates of good English high schools to courses leading to the degree of Bachelor of Philosophy. This opportunity was broadened last year by the opening of four-year courses in Biology, Chemistry, General Science and Medical Preparatory work, these courses leading to the degree of Bachelor of Science, and being accessible to graduates of all good high schools. These new courses open broad opportunities to graduates of schools, not fitting especially for college, to secure a thorough college training. Bachelors of Philosophy may, if they desire, go on to the attainment of the degree of Bachelor of Arts.

In response to a pressing demand, the college was, in the summer of 1892, opened to women on the same terms as to men. Nine women registered in all departments in that year. In 1895-96 the catalogue showed a registration of fifty-four women in the College of Letters, eleven in the Divinity School and thirty-three in the Medical School. In the fall of 1894 there was opened for the accommodation of women students Metcalf Hall, the gift of Mr. Albert Metcalf, of Newton. The admission of women to the college was followed a year later by the opening of the Tufts College Medical School. The school has graduated three classes, and has enjoyed substantial growth in the number of its students and in its facilities for work.

SMITH COLLEGE.

Smith College, an institution for the higher education of women, was founded by Miss Sophia Smith, of Hatfield, Mass., who bequeathed the bulk of her property for that purpose, stated the character of the education which should be given, appointed the first trustees, and selected Northampton as its site. The amount received from Miss Smith's will was \$368,468, and the town of Northampton added \$25,000 to meet the condition of the will concerning the site.

A charter was granted in 1871, and the same year the trustees held their first meeting, and purchased thirteen acres in the centre of the town as a site. The aim

of the college was stated in a circular issued by the trustees in 1872, as follows: "It is the design of the trustees, as it was evidently of the founder, not to add to the number of such schools, seminaries, or academies, as now exist for young ladies, but to realize completely and truly the idea of a *woman's college*. They would secure to young women a culture fully equivalent to that afforded to young men by our best New England colleges. The requirements for admission will be substantially the same as at Harvard, Yale, Brown, Amherst and other New England colleges."

In 1873 Rev. L. Clark Seelye, D.D., Professor of Rhetoric and English Literature at Amherst College, was elected president of the college, and entered upon his duties immediately. The first academic building was erected and dedicated July 14, 1875, and in September of the same year the college was opened for the reception of students. There were fourteen in the first class, and eleven teachers were provided for them. A four years' course of study was adopted, and each year a new class was added until the four classes were formed. The first commencement exercises were held June 18, 1879, when the degree of A.B. was given to eleven graduates.

The adoption of small dwelling-houses, arranged as far as possible like private homes, and presided over by a lady who should act as "house mother" and should direct its social and domestic life was a distinctive feature of the college. One dwelling-house was provided at the opening of the college, and others were erected afterward to meet the needs of the college, accommodating from twenty to fifty students. Each house has its own kitchen, dining-room, parlors and bed-rooms, and is so located as to give free access of light and air to the other buildings. The plan of these houses is the natural outgrowth of the design of the college, as expressed in its official circulars: "It is a woman's college, aiming not only to give the broadest culture, but also to preserve and perfect every characteristic of a complete womanhood."

A gymnasium is provided for the physical culture of the students, and a specialist, after personal examination, prescribes exercises adapted to the individual need. The college is Christian in its aim, but is undenominational in management and instruction. There is no college church, but students are expected to attend churches in the city, according to individual preference. At five o'clock each Sunday afternoon there is a vesper service in the college chapel which the students are expected to attend.

For several years Smith College gave only the degree of A.B., but in 1886 two additional courses of study were arranged, called the literary and scientific, requiring a greater amount of modern languages or of the natural sciences, in place of the classics or mathematics. These courses also extend through four years, and the graduates from the literary course receive the degree of B.L., and from the scientific course the degree of B.S. The design of the various courses is stated as follows: "The college is not intended to fit woman for a particular sphere or profession, but to perfect her intellect by the best methods which philosophy and experience suggest, so that she may be better qualified to enjoy and to do well her work in life, whatever that work may be."

A school of music and a school of art were established in connection with the college in 1880 for the purpose of providing the best facilities for the study of music, practical and theoretical, and of drawing, painting and sculpture; and the following year a music hall and art gallery were erected for their accommodation. The regular courses of study in these schools extend through four years, and each school has a separate corps of teachers. Members of the academic department can elect any of these courses, and students of approved age and attainment can pursue them exclu-

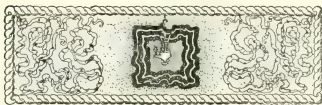
sively as specialties. For those who wish to pursue advanced courses in music, art, philosophy, language, literature, and science, post-graduate courses are provided.

Of the additional gifts made to the college the most important are as follows: \$30,000 for an art gallery, and \$50,000 for an art fund by Mr. Winthrop Hillyer; \$65,000 as a bequest from Mr. George W. Hubbard; \$32,500 for the Lilly Hall of Science, by Mr. A. T. Lilly; \$20,000 to purchase works of art; \$15,000 for an observatory; \$10,000 for additional studios; \$20,000 for scholarships; and \$5,000 as a bequest from Governor W. B. Washburn; \$10,000 for a plant house from Mr. E. H. R. Lyman. There are a limited number of \$100 and \$50 scholarships to aid deserving students who are unable to complete a collegiate education without such assistance. The present value of the college funds is \$600,000, and of its real estate, \$780,000.

The number of students in the college has steadily increased, and in 1896 it was 932. The various classes number as follows: First Class, 310; Second Class, 240; Junior Class, 155; Senior Class, 181; School of Music, 32; School of Art, 11; Graduate students, 3.

The Faculty, including both sexes in about equal proportions, numbers 58. In Miss Smith's will only men were appointed as trustees, but in June, 1888, the trustees requested the associate alumnae of the college to nominate three candidates to fill existing vacancies in the board, and that request was complied with.

The college now has besides the College Hall, Lilly Hall of Science, Gymnasium and Art Gallery, a Music Building, Observatory, Lyman Plant House, and ten Dormitories.



CHAPTER CLIV.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

BY WILLIAM T. DAVIS.



ON the 28th of May, 1860, a sub-committee of the "Committee of Associated Institutions of Science and Art," consisting of William Barton Rogers, Erastus B. Bigelow, James M. Beebe, M. D. Ross and C. H. Dalton reported to the General Committee a plan for an institution designed for the advancement of the industrial arts and sciences and practical education in the commonwealth of Massachusetts. Their report embodied the "objects and plan of an Institute of Technology, including a Society of Arts, a Museum of Arts and a School of Industrial Science." On the evening of the 11th of January, 1861, a meeting of those interested in the plan was held, at which addresses were made by Prof. Benjamin Pierce, Rev. Dr. Ezra Styles Gannett and others, and the following form of association was adopted:

"We, the subscribers, feeling a deep interest in promoting the industrial arts and sciences, as well as practical education, heartily approve the objects and plan of an Institute of Technology embracing a Society of Arts, a Museum of Arts and a School of Industrial Science as set forth in the report of the committee, and we hereby associate ourselves for the purpose of endeavoring to organize and establish in the city of Boston such an institution under the title of "The Massachusetts Institute of Technology, whensoever we may be legally empowered and properly prepared to carry these objects into effect." A committee of twenty-one was then appointed to obtain an act of incorporation and to secure a grant of land on the Back Bay in Boston, and draw up a constitution and by-laws. This committee consisted of William Barton Rogers, James M. Beebe, Edward S. Tobey, S. H. Gookin, E. B. Bigelow, M. D. Ross, J. D. Philbrick, F. S. Storer, J. D. Runkle, C. H. Dalton, E. C. Cabot, J. B. Francis, J. C. Hoadley, M. P. Wilder, C. L. Flint, Thomas Rice, John Chase, J. P. Robinson, F. W. Lincoln, Jr., Thomas Aspinwall and J. S. Dupee. The list of original members of the association included one hundred and sixty-seven gentlemen of Boston, two of Brookline, nine of Cambridge, one of Charlestown, three of Clinton, one of Chicopee, one of Chelsea, one of Woburn, six of Lowell, one of Providence, one of Springfield, four of Salem, one of Lynn, one of Holyoke, two of Auburndale, one of Lexington, three of New Bedford, one of Middleboro, one of Dedham, one of Roxbury and one of Dorchester.

On the 10th of April, 1861, the Massachusetts Legislature incorporated the members of the committee of twenty-one above referred to, and their associates, under the name of the "Massachusetts Institute of Technology," for the purpose of instituting and maintaining a society of arts, a museum of arts, and a school of industrial

science, and aiding generally, by suitable means, the advancement, development and practical application of science in connection with arts, agriculture, manufactures and commerce, with authority to hold real and personal estate to an amount not exceeding two hundred thousand dollars. The act provided that if, within one year, the institute should furnish satisfactory evidence to the governor and council that it was duly organized, and had funds subscribed or guaranteed amounting to one hundred thousand dollars, it should be entitled to hold, occupy and control the westerly two-thirds part of the second square westwardly from the Public Garden, between Newbury and Boylston streets, in Boston, according to the plan reported by the commissioners on the Back Bay, February 21, 1857, free of rent or charge by the commonwealth. On the 25th of April, 1862, the time for the organization of the Institute, and the subscription of its funds was extended to one year from that date. The institute was duly organized under its charter, and in April, 1862, William Barton Rogers was chosen president; John Amory Lowell, Jacob Bigelow, Marshall P. Wilder and John Chase, vice-presidents; Thomas H. Webb, secretary, and Charles H. Dalton, treasurer. To Mr. Rogers, more than to any other man, the establishment of the institute was due, and this narrative, however brief, should include at least a meagre sketch of his life. He was the son of Dr. Patrick Kerr and Hannah (Blythe) Rogers, of Philadelphia, and was born in that city December 7, 1804. James Blythe Rogers, Professor of Chemistry successively in Washington Medical College, Baltimore, the Medical College of Cincinnati, the Franklin School of Philadelphia, and the University of Pennsylvania; Henry Darwin Rogers, Professor of Natural History at Glasgow; and Robert E. Rogers, Professor of Chemistry in the Universities of Virginia and Pennsylvania, were his brothers. He graduated at William and Mary College, and began his scientific career in 1827 as a lecturer in the Maryland Institute, and in 1829 succeeded his father as Professor of Natural Philosophy and Chemistry in William and Mary College. From 1835 to 1853 he was professor of Natural Philosophy and Geology in the University of Virginia, and in the latter year removed to Boston. In the winter of 1861-2 he delivered a course of lectures before the Lowell Institute, in Boston, on the application of science to the arts, and entered on his duties in the Institute of Technology soon after the close of the course.

The institute occupies for all its departments six buildings. Two of these are situated on the land lying between Newbury and Boylston streets, granted to the institution by the Legislature in 1862. One of these two named the Rogers building, after the founder of the institute, is the more easterly one, and was completed in 1865. It is ninety by one hundred and fifty-six feet, four stories in height, and contains besides a hall, named Huntington Hall, after Ralph Huntington, an early benefactor, lecture-rooms, recitation-rooms, drawing-rooms, the offices of the president and secretary, accommodations for the departments of biology and geology, and for the John Cummings laboratory of mining, engineering and metallurgy. The Walker building, the other of the two, named after Francis A. Walker, a successor of Mr. Rogers in the presidency, stands at the corner of Clarendon street, and was built in 1883. It contains rooms for the department of chemistry, including the Kidder laboratory, recitation and lecture rooms, including those for modern languages and mathematics, a laboratory for industrial chemistry, and rooms for the department of physics. In the immediate vicinity are the engineering building, erected in 1889, fifty-two feet by one hundred and forty-eight, five stories in height, an architectural building, fifty-eight feet by sixty-eight, five stories high, erected in 1892; a gymnasium, one hundred and sixty feet by fifty, and a series of shops which cover about twenty-four thousand feet of land. There are no dormitories connected with the institution, but the students are free to live where they choose.

The libraries of the institute, of which there are eleven, contain about twenty-eight thousand volumes, so distributed as to be connected with the various departments to which they apply. The chemical library contains five thousand volumes and two thousand pamphlets; the engineering library, four thousand; the physical library, thirty-five hundred; the political science library, five thousand; the architectural library, one thousand besides six thousand or more photographs. The number of scientific journals, magazines and reviews received is three hundred and sixty-two.

There are eight laboratories connected with the institute: 1st, the Rogers laboratory of physics, occupies seventeen rooms in the Rogers building, and includes a laboratory of general physics, a laboratory of electrical measurements, a dynamo-room, a laboratory of electrical engineering, a room for photographic work, an acoustic laboratory, an optical-room, a room for the construction and test of resistance coils, and a room containing various electro dynamo meters, and other apparatus used in connection with measurements upon self-induction.

2nd. The Kidder laboratories of chemistry also in the Walker Building includes eighteen working laboratories, the laboratory of general chemistry, the laboratory of analytical chemistry, a room for volumetric analysis, the organic laboratory, the balance room, a room for sanitary chemistry, a laboratory for gas analysis, three other chemical laboratories, the laboratories of industrial chemistry and a room for instruction in the optical analysis of sugar.

3rd. The John Cummings Laboratory of mining, engineering and metallurgy in the Rogers Building contains a blow pipe room, a room for assaying, the milling room and smelting room.

4th. The engineering laboratories in Trinity Place include the steam laboratory, the hydraulic laboratory, the strength testing laboratory and a room for cotton machinery.

5th. The Biological Laboratory in the Rogers Building includes accommodations for microscopy, general biology, comparative anatomy and embryology, physiology and histology and bacteriology.

6th. The Architectural Laboratory is in the Architectural Building in Trinity Place.

7th. The geological laboratories in the Rogers Building contain the laboratory of mineralogy, lithology, structural geology and economic geology, a room for blow pipe work and the geological library and laboratory.

8th. The mechanical laboratories or workshops are located in Garrison street.

The courses of instruction in the Institute are civil engineering, including railroad engineering, highway engineering, bridge building and hydraulic engineering; mechanical engineering, including steam and mill and locomotive engineering; mining engineering and metallurgy; architecture; chemistry; electrical engineering; biology; physics; general studies; chemical engineering; sanitary engineering; geology and naval architecture.

The school or institute was opened October 22, 1865, in Mercantile Hall, Summer street, Boston, and about seventy students were registered. The Faculty was composed of the following persons: William Barton Rogers, LL.D., President; John Daniel Runkle, A.M., professor of mathematics and analytical mechanics; William Barton Rogers, LL.D., professor of physics and geology; Frank H. Storer, S.B., professor of general and industrial chemistry; Charles William Eliot, A.M., professor of analytical chemistry and metallurgy; William P. Atkinson, A.M., professor of English language and literature; Ferdinand Bocher, professor of modern languages;

John B. Henck, A.M., professor of civil and topographical engineering; William Watson, Ph.D., professor of descriptive geometry and mechanical engineering; William R. Ware, S.B., professor of architecture; James D. Hague, professor of mining engineering, and William P. Atkinson, secretary. President Rogers resigned on account of ill health July 1, 1869, and in October, 1870, John Daniel Runkle who had been acting president since the resignation of Dr. Rogers was chosen president.

Dr. Runkle was the son of a farmer in Montgomery county, New York, and was born in the town of Root, October 11, 1822. After spending his youth on the farm he entered the Lawrence Scientific School of Harvard and graduated from that institution in 1851. At the organization of the Institute he was appointed professor of mathematics and analytical mechanics, and at the time of his election to the presidency was still serving in that office; at the present date 1897, he continues in the professorship. He received an honorary degree of A.M., from Harvard in 1851, Ph.D. from Hamilton in 1869, and LL.D. from Wesleyan in 1871.

In 1878, Dr. Runkle resigned the presidency and Dr. Rogers was persuaded to resume the duties of office until his successor was chosen. On the 30th of May, 1881, Francis Amasa Walker was chosen and Dr. Rogers retired. On the 30th of May 1882, while attending the commencement exercises of the institute his death occurred in the manner described in the following extract from "His Life and Letters" recently published under the editorial charge of his widow. "President Walker with words of eloquent and growing tribute, by which Mr. Rogers was visibly moved, invited him to speak. His voice was at first weak and faltering, but, as was his wont he gathered inspiration from his theme, and for the moment his voice rang out in its full volume, and those well remembered most thrilling tones. Then of a sudden there was silence in the midst of his speech; that stately figure suddenly drooped, the fire died out of that eye ever so quick to kindle at noble thoughts, and before one of his attentive listeners had time to suspect the cause, he fell to the platform instantly dead."

Francis Amasa Walker, the successor of President Rogers, was the son of Amasa and Hannah (Ambrose) Walker, and was born in Boston, July 2, 1840. His father was a man of distinction, beginning his career as a successful merchant in Boston, and, after occupying prominent political positions, was Professor of the Science of Political Economy at Oberlin College from 1842 to 1849. After that time he was a delegate to the First International Peace Convention, secretary of the Commonwealth of Massachusetts in 1851 and member of Congress in 1862 and 1863. President Walker graduated at Amherst College in 1860, and entered the office of George F. Hoar and Charles Devens, of Worcester, as a student at law. At the breaking-out of the War, he abandoned his studies, and entered the service as sergeant-major of the Fifteenth Massachusetts Regiment of Infantry, commanded by Colonel Charles Devens, one of his instructors. On the 14th of September, 1861, he was made assistant adjutant-general on the staff of General D. N. Couch, and August 11, 1862, adjutant-general of Couch's division. On the 23rd of December, 1863, he became a colonel on the staff of the Second Army Corps, and in 1865 was breveted brigadier-general. He was wounded at Chancellorsville in 1863, and in August, 1864, became a prisoner in Libby prison. After his return home he was two years classical teacher in the Williston Seminary at Easthampton, Mass., and in 1869 was made Chief of the Bureau of Statistics in the Treasury department at Washington. In 1870 he was appointed Superintendent of the Ninth Census, and in 1871 Commissioner of Indian Affairs.

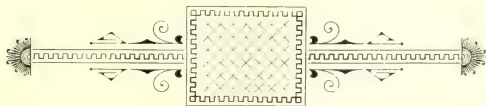
In 1873 he was chosen professor of political economy and history in the Shef-

field Scientific School of Yale College, and in 1876 was chief of the Bureau of Awards at the Philadelphia Centennial Exposition. In 1878 he was commissioner to the International Monetary Conference at Paris, and in 1880 was appointed superintendent of the Tenth Census. He was vice president of the National Academy of Sciences and member of the American Economic Association and of several statistical societies. He received the degree of Ph.D. from Amherst in 1875, the degree of LL. D. from Yale and Amherst in 1881, Harvard in 1883, Columbia in 1887, St. Andrew's in 1888, and Dublin in 1892. At the time of his death, which occurred January 5, 1897, he was a trustee of the Boston Public Library, as well as president of the Institute. Since the death of General Walker no president has been chosen.

The number of graduates from the institute, beginning with a class of fourteen graduating in 1868, has been, up to 1895 inclusive, thirteen hundred and ninety-four, of which number more than one-half have graduated during the last six years. This statement is conclusive of the increasing popularity and usefulness of the institution. The list of graduates contains students from Canada, Honolulu, Japan, Korea, Australia, Paris, Germany, Honduras, South African Republic, Brazil, London, Trinidad, Glasgow, and thirty-eight states of the union.

The courses of instruction have been amplified from time to time, and at present its officers of instruction include nineteen professors, ten associate professors, eighteen assistant professors, fifty-five instructors, and twenty-six annual lecturers and teachers. The salaries of the officers and instructors amount to \$180,667.94, and in the last reported year, the total expenses of the institution were \$267,547.90.


The institute has a fund of about \$1,500,000, of which the sum of \$200,000 was given by the commonwealth, chargeable with forty scholarships, and the remainder by sundry persons, the most prominent of whom have been Dr. William J. Walker, Ralph Huntington, George B. Dorr, Richard Perkins, Jerome S. Kidder, Mrs. Henry Edwards, Miss Catherine Perkins, James Hayward, Powell Mason, James Savage, Nathaniel Nash, Henry Harris, James McGregor and Albion K. Welch. Besides the sum of \$200,000 the state pays the institute \$4,000 a year, and one-third of the income of a fund authorized by Congress, July 2, 1862, amounting to about \$12,000. The total income in the last reported year, including students fees of \$185,873.77, was \$264,285.78, leaving a deficiency of about \$3,000. The whole amount of income yielding property is \$504,403.75, and the value of the real and personal estate is estimated at \$707,926.85 for buildings and \$127,155.69 for land.



CHAPTER CLV.

CLARK UNIVERSITY.

BY G. STANLEY HALL, PH.D.

 LARK UNIVERSITY was founded by the munificence of Jonas G. Clark, a native of Worcester county, whose plans, conceived more than twenty years ago, have gradually grown with his fortune. His affairs have been so arranged as to allow long intervals for travel and study. During eight years thus spent, the leading foreign institutions of learning, old and new, were visited, and their records gathered and read. These studies centered about the means by which the highest culture of one generation is best transmitted to the ablest youth of the next, and especially about the external conditions most favorable for increasing the sum of human knowledge. To the improvement of these means and the enlargement of these conditions, the new university was devoted.

It was the strong and express desire of the founder that the highest possible academic standards be here forever maintained; that special opportunities and inducements be offered to research; that to this end the instructors be not overburdened with teaching or examination; that all available experience, both of older countries and our own, be freely utilized, and that new measures, and even innovations, if really helpful to the highest needs of modern science and culture, be no less freely adopted; in fine, that the great opportunities of a new foundation in this land and age be diligently explored and improved.

He chose Worcester as the seat of the new foundation after mature deliberation—first: because its location is central among the best colleges of the East, and by supplementing, rather than duplicating, their work, he hoped to advance all their interests and to secure their good will and active support, that, together, further steps might be taken in the development of superior education in New England; and secondly, because he believed the culture of this city would insure that enlightened public opinion indispensable in maintaining these educational standards at their highest, and that its wealth would insure the perpetual increase of revenue required by the rapid progress of science.

As the first positive step towards the realization of these long-formed plans, Mr. Clark invited a number of prominent gentlemen to constitute with himself a board of trustees. A petition for a charter was at once made by this board, and granted by the legislature, January 18, 1887.

During the previous five years, Mr. Clark had gradually acquired a tract of land, comprising over eight acres, located on Main street, about a mile from the heart of the city, with additional tracts near by. This land has considerable elevation above that part of the city, is a watershed sloping to the southeast, insuring sanitary excel-

lence and a wide and picturesque view. A park reservation of about twenty-five acres, directly opposite, has been set apart by the city, and named University Park.

Plans for a main building were submitted to the board by Mr. Clark, which were approved, and its erection was at once begun. The corner-stone was laid with impressive ceremonies October 22, 1887. The building is large, plain, substantial and well-appointed, four stories high and five in the centre, with superior facilities for heating, lighting and ventilation, and has been constructed of brick and granite, and finished throughout in oak. This building is a model of stability and solid workmanship. It contains a total of ninety rooms, and in its tower is a clock with three six-foot illuminated dials, which was presented by the citizens of Worcester.

In 1888 G. Stanley Hall, then a professor of Johns Hopkins University, was invited to the presidency. The official letter conveying the invitation to the president contained the following well-considered and significant expression of the spirit animating the trustees :

"They desire to impose on you no trammels ; they have no friends for whom they wish to provide at the expense of the interests of the institution ; no pet theories to press upon you in derogation of your judgment ; no sectarian tests to apply ; no guarantees to require, save such as are implied by your acceptance of this trust. Their single desire is to fit men for the highest duties of life, and to that end, that this institution, in whatever branches of sound learning it may find itself engaged, may be a leader and a light."

This invitation was accepted May 1, and the president was at once granted one year's leave of absence, with full salary, to visit universities in Europe. This year was diligently improved in gathering educational literature and collecting information and advice from leading authorities. Many reports, based upon this work, have already been made in the Pedagogical Seminary, and more are in course of preparation.

During the absence of the president a chemical laboratory was begun. This building, in its main body, has three stories—in its eastern wing four ; in its south-western two. It contains sixty-eight rooms.

The opening exercises were held in a hall of the university, seating 1,500 people, on Wednesday, October 2, 1889. The late Gen. Charles Devens presided, and made an opening address.

After careful consideration it was decided to begin with graduate work only, and in the following five departments : Mathematics, physics—experimental and theoretical—chemistry—organic, inorganic, physical and crystallography—biology, including anatomy, physiology and paleontology ; psychology, including neurology, anthropology and education.

Our university does not draw its chief earnings from, or do most of its teaching for, undergraduates, and our so-called graduate students do not take undergraduate courses. This makes the proportion of expenditure to income very high here, and indeed we can admit and do justice to but comparatively few students. Most of those who come here have spent one or more years after graduation in teaching, or in study in Europe or elsewhere. Most of these who have been members here have already obtained professorships or other academic positions elsewhere. This proportion is hardly excelled by the *Ecole Normale* of Paris, the special function of which is to train professors from other collegiate institutions. Every student who obtains original results is expected to present them in the form of lectures to his department, and thus to acquire experience in teaching under criticism. The work of the educational department deals with problems and history of higher educational institu-

tions, and is adapted to all the body of fellows and scholars, and seeks to increase the efficiency of every man, both as a teacher of his own specialty and in general helpfulness to the institution with which he is to be connected.

Since the opening of the University not less than one hundred and sixty books, memoirs, theses or articles, have been published by members of the University, which attempt to make additions to the sum of human knowledge. These contributions are of very different orders of value, but together they constitute a body of knowledge in which the institution takes special pride. Every member of the University is expected to make at least one long and serious effort of this kind.

Clark University is exclusively what is called in Europe a philosophical faculty, or a part of one so far as yet developed, devoted to a group of pure sciences which underlie technology and medicine, but not yet applying its work to these professional fields.

Only graduate students are admitted, or those of equivalent attainments, unless in rare and special cases. At present no entrance examinations are required, but, by testimonials, diplomas, personal interviews or written specimens of work, the authorities must be satisfied that the applicant has scholarship enough to work to advantage, and zeal and ability enough to devote himself to his chosen field. The methods of the University are too costly, and its energy and funds too precious to be spent upon men who are not well trained, promising, and in earnest. It is highly desirable, and will probably before long be required, that candidates entering any of the five departments shall have, besides a knowledge of the other subjects commonly taught in colleges, a reading knowledge of French and German.

For the select students who are received, it is the purpose of the University to open all its privileges, and to supply every incentive possible in the way of books, facilities, and, above all, direct personal stimulus and instruction. The chief as well as the best work of this University is individual, and involves daily suggestion, encouragement and direction.

In most cases it is probable that three, or at least two, years of graduate work will be necessary for this degree. Examinations for it, however, may be taken at any time when, in the judgment of the university authorities, the candidate is prepared. A pre-arranged period of serious work at the University itself is indispensable.

For this degree the first requirement is a thesis upon an approved subject, to which it must be an original contribution of value. To this, capital importance is attached. It must be reported on in writing by the chief instructor, printed at the expense of the candidate, and at least one hundred copies given to the University. In case, however, of theses of very unusual length, or containing very expensive plates, the academic senate shall have power, at the request of the candidate, to reduce this number of presentation copies to fifty. Each of these copies shall bear upon it in print the statement of the chief instructor, that it is a thesis for the doctor's degree in his department at Clark University.

Such formal or informal tests as the academic senate shall determine shall mark the acceptance of each student or fellow as a candidate for this degree.

One object of this preliminary test shall be to insure a good reading knowledge of French and German. Such formal candidature shall precede by not less than six months and not more than one year the examination itself, and the nature and result of this test shall be made matter of record.

The fee for the doctor's degree is \$25, and in every case it must be paid and the presentation copies of the thesis must be in the hands of the librarian before the diploma is given. In exceptional cases, however, and by special action of the senate,

the ceremony of promotion may precede the presentation of the printed copies of the thesis. The latter, however, must always precede the actual presentation of the diploma.

An oral but not a written examination is required upon at least one minor subject in addition to the major, before an examination jury, composed of at least four members, including the head of the department and the president of the University, who is authorized to invite any person from within or without the University to be present and to ask questions. The jury shall report the results of the examination to the senate, who, if they are also satisfied, may recommend the candidate for the degree.

For the bestowal of this degree, the approbation of the board of trustees must in each case be obtained. They desire that the standard requirements for it be kept the highest practicable, that it be reserved for men of superior ability and attainment only, and that its value here be never suffered to depreciate.

It is to the needs of these students that the lectures, seminaries, laboratories, collections of books, apparatus, etc., are specially shaped, and no pains will be spared to afford them every needed stimulus and opportunity. It is for them that the fellowships and scholarships are primarily intended, although any of these honors may be awarded to others.

The founder of the University and his wife unite with the trustees and president in inviting sympathy and practical co-operation in the multiplication of such aids, large or small, temporary or permanent, here at the outset.

In addition to this a citizen of Worcester has given a fund of \$5,000, the income of which is to be used for the aid of "some one or more worthy native-born citizens of the city of Worcester who may desire to avail themselves of the advantages of the institution."

Mrs. Eliza W. Field has also given \$500, to be called the "John White Field Fund," the income of which is "to provide for the minor needs of a scholar or fellow."

The University library contains 15,500 bound volumes and 1,500 pamphlets, and the reading room received 239 journals. With the exception of 3,200 congressional publications and other contributed volumes, the library and the journals represent chiefly the five departments.

The *American Journal of Psychology* was commenced in November, 1887, and is edited by G. Stanley Hall. Each volume contains four numbers of about 150 pages each. Besides original articles, about half its space is devoted to careful digests of the important literature in its field.

The *Pedagogical Seminary* is another periodical, which was begun in January, 1891, and is edited by the president of the University. It is an international record of educational literature, institutions and progress, and is devoted solely to the highest interest of education in all grades, with digests of important literature of all countries. Each volume contains from 400 to 500 pages. It is the organ of the educational department of the University.

CHAPTER CLVI.

THE PHILLIPS ACADEMY AT ANDOVER.

BY REV. C. F. P. BANCROFT.

IN the darkest days of the Revolutionary War a few educated and benevolent men were occupied in Andover in planning and founding a new school, and a new kind of school, for the "improvement of youth, of requisite qualifications, from every quarter." After diligent study of the academies and great public schools of England, and the grammar schools, so-called, in America, they established in 1778 a school of a peculiar and distinctive type, destined to affect in an important degree the course of education in the new nation. It is not that the Phillips Academy is the oldest incorporated academy, and one of the largest, and always one of the best, so much as its creative and formative influence that has given it a high place among our historic schools.

The leading mind in its establishment was that of Samuel Phillips, commonly known as Judge Phillips, one of the most distinguished and, perhaps, the most brilliant of a very remarkable family, in the galaxy of whose names those of Wendell Phillips and Phillips Brooks shine with a special lustre. He was the son of Hon. Samuel Phillips (Harvard, 1734), a prosperous merchant in the North Parish of Andover, grandson of Rev. Samuel Phillips (Harvard, 1708), first pastor of the church in the South Parish, and through them a lineal descendant from Rev. George Phillips, pastor of Watertown, who came with Governor Winthrop and other Puritan worthies to Salem in 1630. He prepared for college at the Dummer School in Byfield, under the famous Master Moody, and was graduated from Harvard in 1771. At twenty-three he entered the Provincial Congress, and was in public life until his death. He was a member of the Constitutional Convention, a member of the Senate for twenty years, fifteen its president, judge of the Court of Common Pleas for sixteen years, a commissioner for the suppression of Shay's rebellion, one of the overseers of Harvard College, from which he received the degree of LL.D. in 1793, one of the founders of the American Academy of Arts and Sciences, lieutenant-governor of the commonwealth, in which office he died at the early age of fifty. Had he lived to three-score and ten, no doubt he would have been one of the foremost of the great men of his time. His most enduring honor is that he projected and fostered Phillips Academy.

Associated with him was Eliphalet Pearson, LL.D., master of the local grammar school, whom he had known at Dummer and Harvard, who was to be the first principal of the academy, then for twenty years professor at Harvard and a formidable candidate for the presidency of the college, the first professor elected to the Theological Seminary, and a trustee of the academy and seminary from 1778 to his death in 1826. He was a man of great energy, and enterprise of mind and weight of char-

acter. The plan of the new school was, no doubt, jointly the work of these two able and sagacious men. The original documents, however, are almost all in the hand of Phillips. Pearson's astute counsels were oral, but must have been influential.

These two friends enlisted in the new enterprise the father of Judge Phillips, Samuel Phillips, of Andover, his uncle, John Phillips, LL.D., of Exeter, and these two brothers became the founders in form and name, giving the original lands and money for the school, and also much personal attention. A third brother, Hon. William Phillips, of Boston, was interested somewhat later. So much satisfaction did Dr. John Phillips take in the Andover experiment that he resolved to plant a similar school in his own town, and he became the sole founder of Phillips Exeter Academy, which was opened for instruction a little over five years after the Phillips Academy at Andover, and to Andover he bequeathed a third of his estate, and two-thirds to Exeter. The wish was expressed in the Andover constitution that the usefulness of the school might "be so manifest as to lead to other establishments on the same principles." This was realized early. The older Dummer Academy was incorporated. More than a hundred charters have been issued in Massachusetts. The plan extended into other New England states. It went westward into the newer states, and in a less degree to the south. High schools, sustained by public taxation and under local control, for the benefit of the pupils of a particular locality, have been numerous and are indispensable. Private schools for secondary education, unincorporated and unendowed, have of late been doing a large and valuable work. Some of the old academies have been displaced by these other agencies, but the academy idea, as developed at Andover, modified in various ways according to the requirements of a particular community, has shown its vitality by the establishment, in recent years, of many new institutions substantially of this type.

The academy was opened April 30, 1778, with thirteen scholars, in a modest building which had been fitted up out of a carpenter's shop, with desks for thirty scholars. Within two years there were sixty pupils. Before 1800 seven hundred and one pupils in all had been admitted to its privileges. The attendance has gradually increased in the present century till it exceeds at present four hundred. At first the scholars came mostly from Massachusetts, including the province of Maine, and New Hampshire, but the powerful connections of the Phillips family soon brought pupils from distant places, the Washingtons and Lees from Virginia, Middletons and Austins from South Carolina, and boys from the West Indies. For many years more than half the pupils came from places outside New England, representing all parts of the country, and occasionally foreign lands.

From the very beginning the academy has been a fitting school for the colleges, previous to 1800 almost exclusively for Harvard, then for sixty years more especially for Yale, but always for any and all the colleges, according to the choice and circumstances of individual pupils. After the establishment of scientific schools it began to prepare candidates for them with the same thoroughness as for the classical colleges. In 1896 it sent up more pupils to the colleges and scientific schools than had ever gone from Andover, or from any other school in America, the largest delegations, as usual, to Harvard and Yale, and smaller numbers to many other institutions, east and west. The school has been throughout its history a strong feeder of the best and strongest colleges, and has given training besides to thousands of pupils who did not go to the college. Indeed, there is no mention in the elaborate and careful constitution of service to the colleges as a preparatory school. The first and principal object of the school is declared to be "the promotion of true Piety and Virtue; the

second, instruction in the English, Latin and Greek languages, together with Writing, Arithmetic, Music, and the Art of Speaking; the third, practical Geometry, Logic, and Geography; and the fourth, such other of the liberal Arts and Sciences as opportunity and ability may hereafter admit, and as the trustees shall direct."

When Benjamin Franklin took the Charitable School in Philadelphia and transformed it into an academy, which afterward became a college, and is now the University of Pennsylvania, he urged three motives—the philanthropic, the patriotic, the religious. The same reasons are found in the Phillips constitution, with a mighty emphasis upon the religious grounds of education. The founders foresaw that many of the students might "be devoted to the sacred work of the gospel ministry," and therefore made it "the duty of the master to instruct and establish them in the truth of Christianity." At that time there were no theological schools, and the founders provided with considerable distinctness for theological instruction. At first this instruction was given by the local pastor, Rev. Jonathan French, but in 1807, Madame Phillips and others provided a special endowment, and by a special charter the trustees established a separate and distinct divinity school, which was opened in 1808, the first theological seminary in the country. It has its own buildings and grounds, faculty, course of study, endowments, and records, but is administered by the trustees of Phillips Academy. It has graduated more than two thousand men, most of whom have been pastors or missionaries. While the professors are either Congregationalists or Presbyterians, so liberal has been the management that students from many denominations have resorted to it for instruction. It is a unique feature of the Academy that the trustees have been charged with the interests of a theological seminary.

In 1830 the trustees instituted "the English Department and Teachers' Seminary." The Stone Academy and English Seminary were erected for its use. It was organized as independently as the theological school had been, but with the fatal defect that it had no special endowment. The technical school, agricultural college and the normal school were not established at that time, and this school was a distinct anticipation of them. It is a cherished tradition that Horace Mann came to Andover to study this school when he was elaborating his plan for the public normal school which was at length established at Lexington. The successive principals, Rev. S. R. Hall, LL.D., Lyman Coleman, D.D., and Alonzo Gray, LL.D., were men of rare attainments and teaching power. The school was a marked success, and did a noble work. In chemistry, civil engineering, and pedagogy the courses were specially good. But in 1842 the department was made a complement of the Classical Academy, under a single head, and from that time its buildings and equipment were used by both departments, and its teachers have been members of the one faculty. About one-third of all the students have been enrolled in this English, or Scientific Department. It is now largely preparatory for the Latin-scientific and scientific courses of the higher institutions. Latin, French and German are included in its courses, as well as mathematics, natural sciences, and the mother tongue.

The property of the Academy consists of about two hundred acres on the brow of Andover Hill, on which stand the buildings of the Academy and the Seminary, and residences for twenty families variously connected with the two institutions. The gifts from various members of the Phillips family in four generations are about \$100,000, and the entire property of the Academy in buildings and grounds, not including the separate properties of the theological seminary held in trust for that institution, may be set at \$350,000, of which \$275,000 is income-bearing investment. Among the principal benefactors beside the Phillips' donors are George Peabody,

Valeria G. Stone, Samuel Farrar, Peter Serrill, John Smith, John Byers, J. W. Sears, and E. C. D. Borden. There have been a great multitude of other benefactors in sums of less than ten thousand dollars whose names are worthy of equal remembrance.


It is often asked how the Academy has been able to do so much work and so good work on so slender an endowment. Several reasons may be assigned. It was fortunately placed in an intelligent and sympathetic community. It is explicitly protected against local sectarian and class control. It was not designed for Andover or Massachusetts, nor yet for the nation, but for "youth of excelling genius from any quarter"; one article of the Constitution provides that if the interests of the Academy plainly require and justify the step, it may be removed to some other place. It was equally guarded against personal control and nepotism. The majority of its thirteen trustees, a self-perpetuating body, must be laymen. The scope and breadth of the charter are such that the school can adapt itself to the changing conditions of the times and of the country, and especially the rapidly shifting conditions of education. The restrictions laid upon the trustees are explicit, but there is a catholicity and largeness of views which leave room for almost any enlargement and adaptation which the funds will permit. There has been maintained a high standard of scholarship and discipline, with a view to developing a strong and manly character. The sanctions of religion, without bigotry or ecclesiasticism, have been kept sacred in mind by able and exemplary teachers. Many noble and generous men and women have contributed from time to time sums larger and smaller for the purposes of the school, and by a gradual increase of resources it has been able to meet the demands laid upon it, though always at struggle and under a real but not abject poverty. Its very popularity has increased its difficulties by multiplying its necessities.

The school has been stable and strong in its instruction. In almost a hundred and twenty years it has had but eight principals, as follows: Rev. Eliphalet Pearson, LL.D., 1778-1786; Ebenezer Pemberton, LL.D., 1786-1795; Mark Newman, M.A., 1795-1810; John Adams, LL.D., 1810-1833; Osgood Johnson, M.A., 1833-1837; Samuel H. Taylor, LL.D., 1837-1871; Frederic W. Tilton, M.A., 1871-1873; Rev. Cecil F. P. Bancroft, LL.D., L.H.D., 1873, is still in office. The assistant teachers, now numbering twenty, have in a majority of cases served for short periods, but Rev. Jonathan Clement, D.D., James S. Eaton, M.A., M. S. McCurdy, M.A., Edward G. Coy, M.A., David Y. Comstock, M.A., William B. Graves, M.A., George T. Eaton, M.A., have been identified with the school in long and honorable service, while many of those who remained but a short time before being promoted elsewhere have left the impress of their ability and worth upon the history of the academy.

The altogether exceptional combination of an academy and a theological seminary has created about the school an atmosphere of seriousness and learning which has given a dignity to these foundations, and multiplied their advantages. The Abbot Academy for young women, founded in 1829, has contributed also to make Andover an exceptionally favorable place in which to maintain a good academy for boys.

CHAPTER CLVII.

THE WORCESTER POLYTECHNIC INSTITUTE.

HE Worcester Polytechnic Institute owes its existence primarily to the generosity of John Boynton, Esq., a resident of Templeton, Mass. Desiring to set aside a part of his fortune for the benefit of the youth of Worcester county, after several conferences with his friend, Mr. David Whitcomb, who was afterwards a member of the first board of trustees, and himself a liberal benefactor of the institute, Mr. Boynton drew up a letter of gift, which begins with the following paragraph :

“ Being desirous to devote a portion of the property which, in the good providence of God, has fallen to my lot, for the promotion of the welfare and happiness of my fellow-men, I have determined to set apart and do hereby set apart and give the sum of one hundred thousand dollars for the endowment and perpetual support of a free school or institute, to be established in the County of Worcester, for the benefit of the youth of that County.”

This letter was dated May 13, 1865. The gift of Mr. Boynton was supplemented within a year by another, almost equal in magnitude, by Hon. Ichabod Washburn, of Worcester, who, in a letter, dated March 6, 1866, offered to the newly organized institute a fund for the establishment of the machine shop and mechanical department of the institute, together with \$50,000, the income from which was to be devoted to the maintenance of the same. Mr. Washburn had, late in the year 1865, made this proposition to the board of trustees, and it had been by them gratefully accepted, but the formal letter of gift bears the date given above.

In order to utilize the substantial endowments thus afforded it was necessary, especially under the conditions of the Boynton gift, to raise a fund for the erection of suitable buildings in which the work of the institute could be carried on. This fund was raised by very general contribution from the citizens of Worcester, a very large portion of it having been contributed by the Hon. Stephen Salisbury, the first president of the board of trustees, and constantly, during his life, a benefactor of the institute. The period at which this work was undertaken was unfavorable to the collection of large sums of money for purposes of this kind, as it was at the close of the long Civil War, and the conditions of the finances and currency of the nation were not yet sufficiently stable to justify taking many risks in a matter like this. Owing to this fact it was not until the fall of 1868 that the buildings were completed and active operations possible. On the 11th of November, of that year, the inauguration and dedication of the institute took place in Boynton Hall. In the meantime, the president of the board of trustees, Mr. Salisbury, had donated, for the location of these buildings a beautiful and commanding eminence in the northern part of the city of Worcester, not far from Lincoln Square, embracing an area of eight or ten acres. The grounds were properly graded, roads and paths laid out, and the whole

arranged in accordance with the plans of the eminent landscape gardener, Mr. Calvert Vaux. The endowment fund was increased by a very handsome donation from the first president of the board, Mr. Salisbury, who gave a large sum of money in addition to his princely gift to the building fund, and his gift of the land upon which the buildings are located. David Whitcomb, the early friend of John Boynton and long a member of the board of trustees, also made a generous contribution to the funds of the institution. Many other contributions to the endowment fund of the institute were made during the first years of its existence, in sums sometimes large, and often, however, relatively small, but all aggregating an amount which enabled it to accomplish the work for which it has been celebrated during the years of its existence. The Hon. Stephen Salisbury, president of the board of trustees, and son of its first president, has been a generous benefactor, the splendid laboratories of physics, chemistry and electricity being among his gifts.

The plan of organization of the Institute, while similar in many respects to that of other schools of technology of this country and in Europe, differs from that of many of them in some important particulars. These differences owe their origin to a conviction on the part of its founders and those who have since directed its course, that the then little thought of, but now almost universally adopted, laboratory methods of instruction were certain to produce far better results than those previously in use, and especially so when applied to the preparation of young men for the technical professions.

Previous to about the time of the organization of this Institution, one who desired to enter one of these professions was compelled to serve for a long period as a sort of apprentice in the office or in the field with some recognized expert, picking up such professional knowledge as was attainable under conditions which were often about as unfavorable as they could easily be. If he began this apprenticeship early in life, he was forever handicapped by the lack of the large benefits derived from what was called a "liberal education." If he wisely persisted in obtaining this before entering upon his professional work, he found himself compelled to begin with the very rudiments of the latter, after having spent several of the most active, most receptive and most fruitful years of his life without having been in the most remote degree in touch with what he had all along looked forward to as his life's work.

The underlying principle which controls the work of this institute, and which has shaped its course from the beginning, is that courses of study and laboratory exercises may be arranged which will furnish all the intellectual discipline and training which was of real worth in this so-called "liberal education," and at the same time equip the young man with a good knowledge of the sciences specially relating to his chosen profession, together with a considerable amount of actual practice in that profession; and as the latter is always under the direction of competent instructors, whose sole object is instruction, and as it advances side by side with the student's knowledge of theoretical principles involved, it must necessarily be, hour for hour, many times more productive and valuable than professional experience under the old method.

After an experience of nearly a quarter of a century, shared as it has been in later years by almost every institution of learning in the country, it is hardly necessary to argue the validity of this general principle. That the lines along which the development of the school has been directed are, on the whole, correct, is unquestionably proved by the professional standing and recognized ability of the seven hundred graduates now living, nearly every one of whom is now occupying a position of trust and responsibility requiring skill and expert knowledge of the particular

profession which he has entered. Many of them have become recognized leaders in the special lines to which they have devoted themselves, and even in periods of financial depression and business stagnation the graduates of this school have found little difficulty in obtaining agreeable and profitable positions.

In the use of a workshop as furnishing an important and essential part of the training of the mechanical engineer, this institution was the pioneer in this country, and its facilities for this training, as embodied in the Washburn shops, are probably at the present time more extensive than in any other. The theory of the proper organization and use of such shops, in order to insure the greatest benefit to the student, is here somewhat different from that of many other similar institutions. The dominant idea in planning the course of workshop exercises is that it should be such as to give the greatest familiarity with machines and machinery, and that mere manual skill is not an essential element in the make-up of the engineer. Much attention is, therefore, given to the use of machinery, and also to its construction and the study of its operations in the testing laboratories. The constructive idea prevails, therefore, continually, and during his course every student in the department of mechanical engineering will not only have familiarized himself with the use of machinery and with the properties of the material consumed by said machinery, and the character of its output, but also with its construction, and he will have built, in connection with his fellows, all of the parts of one or more tolerably complex machines, involving the use of a wide variety of tools and materials. He will have assembled these parts and produced the complete working machine, to which he will have supplied the necessary power and material upon which it works, and he will also have tested its excellence as a commercial product.

There are four years' courses of study in civil engineering, mechanical engineering, electrical engineering, chemistry and general science. At the successful completion of either one of these the student receives the degree of Bachelor of Science. The institution is amply provided with the best facilities for instruction in all of these subjects. The laboratory method is adopted very largely, and extensive buildings and apparatus are at hand for the proper training of the students. Recent additions to these consist of a very large and thoroughly-equipped engineering laboratory, a power laboratory containing a number of steam engines of the best type, gas engines, and other prime motors; also an extensive hydraulic plant, in which water-power amounting to eighty horse-power has been made available for the purpose of instruction in hydraulic engineering. This plant is completely equipped with a large Venturi meter, believed to be the largest now in use in this country; also with turbine wheels, water meters of other forms, weirs, and all necessary devices for the study of the efficiency of hydraulic machinery on a very large scale.

The equipment of the new engineering laboratory is extensive and includes a number of the newest devices for the study of engineering problems. There is a fine Emery testing machine having a capacity of 100,000 pounds, made by William Sellers & Co., in Philadelphia; a 20,000 pound Wickstead Testing Machine, perhaps the only one in the United States at this time, furnished with accessory arrangements for transverse and torsional tests with automatic registration and several other testing machines made by Fairbanks, Riehle Brothers and others. The necessary apparatus for determining extension, elastic limit, etc., is provided for use in connection with all of these machines. There are dynamometers, both absorption and transmission, for belt testing and other engineering problems. The three engines of the Power Laboratory are arranged so that they may be connected in every possible way, as compound or triple expansion, furnishing in all seven different systems, all

available for students' use in engine testing. There are also other engines for experimental work. The boilers are of the most modern type and are furnished with the necessary appliances for all varieties of evaporation and efficiency tests. There is also a model hydraulic plant in the engineering laboratory, where experiments are made relating to weirs, flow from orifices, etc., the equivalent of any desired head of water being obtained by means of an automatic pressure regulator. There is a cement laboratory with testing machines, mixers, etc.

The laboratories of electrical engineering have only recently been enlarged and their equipment greatly increased. A large collection of dynamos, motors, measuring instruments, many of which are of the very latest type, afford facilities for practical work along this line which are rarely found. A working light and power plant is established in the power laboratory, by which light and power is furnished to other buildings, and it is constructed on such a scale as to furnish a good example of what is found in engineering practice.

The laboratories of physics and chemistry are both extensive and as completely furnished as the growing sciences which they represent will allow of. Very recently a laboratory of industrial chemistry has been established and is now in use, in which the applications of chemical processes on a large, commercial scale, are studied and illustrated. It is hardly necessary to say that along with these highly organized departments of science and technology, there are equally well-developed departments of mathematics, modern languages, history and economics, and that these subjects form a large share of the work in each of the regular courses of study. There are also annual courses of lectures given by men distinguished in their various lines of scientific or technical work. Among the educational forces of the institute, the Washburn Engineering Society is important. Its membership is mostly made up of the alumni of the institution, but others who are actually interested in engineering are admitted. Many important papers have been presented at the meetings of this society, and the discussions that take place are extremely valuable, representing, as they do, the experience of many intelligent men in widely diversified industries, in some of which they are acknowledged leaders.

Although founded originally for the benefit of the young men of Worcester county, the constituency of the institute rapidly enlarged so that now and for many years all parts of the United States and many foreign countries are represented in its roll of students and graduates.

The city of Worcester, by reason of its extensive and varied manufactures, its splendid public and special libraries, which are accessible to the students of this institution, and its beautiful and healthful location, is specially suited to be the home of an institution of this character, which shall be of the highest class, and it is this end which the Worcester Polytechnic Institute is constantly striving to attain.

WORCESTER ACADEMY.

It was chartered and opened in 1834 as "The Worcester County Manual Labor High School." By an act of the legislature the corporate name is now Worcester Academy. With a varied experience, amid financial difficulties, it did much good work up to 1869. The trustees then sold the property on Main street for \$35,000, and bought for \$40,000 the property of the Ladies' Collegiate Institute, on the hill southeasterly from the railroad station. In 1882 the present principal, D. W. Abercrombie, A.M., took charge of the school. Since that time its development and growth have been phenomenal. In 1882 it had one building and four acres of land. It now has five buildings, of special excellence, and twelve acres of land. A sixth building, for instruction in the natural sciences, to cost \$50,000, is in process of erection. In 1870 the school had a property of \$40,000; its property, real and personal, is now valued at \$600,000. In 1882 there were five teachers and about fifty boys and girls in attendance; now the school is for boys only, and more than two hundred are enrolled, and they are in charge of thirteen able men composing the faculty. In 1882 the receipts were about \$10,000; in 1896 they were more than \$75,000. On the large campus is an athletic field and cinder track costing more than \$8,000. In 1882 the Academy did not attract any special attention; now it has a place in the front rank of the academic schools of the country, with an equipment unexcelled. It has two rich courses of study, the classical and scientific, the first planned thoroughly to fit young men to enter the best colleges, the second designed to prepare them to enter the higher scientific schools and the various avocations of life. The Academy is not simply a fitting-place for college. It is an independent educational institution, with a spirit and life of its own, and with individualized aims and methods. It recognizes the fact that the secondary school should furnish a general culture, and not simply a collegiate preparation. The completion of the new science building and its equipment will make practicable a more special development in manual training, chemistry, physics, electrical engineering, mechanical drawing and meteorology. Thus the Academy will place the natural sciences on the same high plane with the classics and mathematics, and furnish attractive facilities for the many young men who do not go to college, but go directly from the Academy into business. The new science building gives the school the unique and distinctively noble characteristic of being the first secondary school to develop its scientific side as fully and consistently as its classical.

During the sixty years of the school's history it has had only two presidents of its trustees, the Hon. Isaac Davis, and the Hon. J. H. Walker, both prominent citizens of Worcester, whose sterling qualities and large public services have illustrated to young men the virtues essential for a noble life and a useful citizenship. The oldest building, Davis Hall, is commemorative of the first president, who was for forty years the chief patron and benefactor of the school.

Walker Hall bears the name of Congressman Walker, who has served the board as president since 1874. His wise counsels and large gifts at exigent times have made possible the school's splendid achievements and distinguished success. This building was dedicated in 1890. It contains the principal's office, reception parlor, library, chapel, a fully-equipped gymnasium and nine pleasant recitation rooms, adorned with classic busts and pictures.

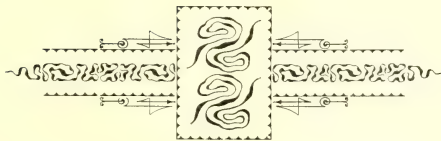
William H. Dexter, the treasurer of the institution, has provided for the cost

(\$85,000) of the magnificent dormitory, Dexter Hall. It is furnished with everything necessary for the comfort and health of the students, including bath-rooms, with hot and cold water, and an isolated infirmary.

Adam's Hall is used extensively for dining purposes, and is unsurpassed in conveniences for cooking and serving meals. It is named in honor of Rev. Robert J. Adams, D.D., of Boston, who has been for about a quarter of a century one of the far-sighted and wisest of the trustees, and who has during this period rendered a service for the school remarkable for its delicacy and usefulness.

The science building is named Kingsley Laboratories, in honor of the Hon. Chester W. Kingsley, of Cambridge, Mass., whose wisdom as a trustee, and large gifts have contributed much for the school's prosperity and success.

The Academy belongs to the Baptist denomination, and is positively a Christian school, where the aim is to make noble character as well as high scholarship, and yet there is nothing in the instruction or administration that is sectarian or narrow. Other evangelical denominations are generously represented on its faculty, and the school attracts the patronage of the various religious denominations. All students are treated with equal favor to the end that both moral and mental culture may be secured, and a fitness acquired for an honorable and useful life.



CHAPTER CLVIII.

STREET RAILWAYS OF MASSACHUSETTS.

BY PRENTISS CUMMINGS.



THE street railway was an American invention. The first successful horse railway for passengers was built in New York city in 1852. The second street railway of the world was constructed between Harvard Square, Cambridge, and Bowdoin Square, Boston, and began operation in March, 1856. The third was the Metropolitan Railroad Company of Boston, which commenced operations in the September following. Thus Massachusetts may claim to be a pioneer in a business which has become world-wide, and which affects in a marked degree the form of civilization and manner of living of vast numbers of people.

Probably there is no locality where a greater change has been wrought by street railways than in Boston and its suburbs. It will be borne in mind that at the time of the advent of the street cars in 1856, Charlestown, Roxbury, West Roxbury, Dorchester and Brighton were independent municipalities. Cambridge was a small city of 20,000 inhabitants, and Cambridgeport was, to a very considerable extent, a mere marsh with a few insecure roads across it. All the bridges leading into Boston were then toll-bridges, and the Milldam and Chelsea roads, and perhaps others, were turn-pikes upon which tolls were charged. The only public means of communication between Boston and any of these places was by lines of coaches. Cambridge then, as now, was the largest of the suburbs, and the best service at any time between Cambridge and Boston was a coach every half-hour during the business portion of the day; and this service was irregular and uncertain, the coaches often foundering in the muddy streets, and the patronage was precarious. The service between Boston Roxbury, Charlestown and other suburban towns was little, if any, better. It was in the main impossible for men doing business in Boston to live outside the city; and no great amount of business could be done either in the city or the suburbs.

At this day it is difficult to realize that a state of things so suggestive of the Dark Ages existed here within the recollection of comparatively young men now living; and it is not too much to say that the street railway has wrought a complete revolution in the habits, condition, and even civilization of the community. In short, it is the street railway that has made Boston possible.

The next street railway into Boston after those above-named was the Middlesex, through Charlestown, and was built in 1857. Next followed the South Boston road, which commenced running in 1858. Next followed the Lynn and Boston Company, which was chartered in 1859, and now enters the city by way of Chelsea and Charlestown.

Many smaller branch roads were established, which, however, had become consolidated with these main lines before the general consolidation of 1887.

Among the most prominent men identified with early street railway enterprises were Calvin A. Richards, Charles E. Powers and Moody Merrill, of Boston; Estes Howe, Samuel B. Rindge and Knowlton K. Chaffee, of Cambridge, and Amos F. Breed, of Lynn. These men had a great popular prejudice to contend against, and were bitterly opposed at every step of their work.

The street railway problem in Boston has for many years been a most difficult one. This is due to the narrow area which comprises the business district of the city, and the fact that all of the twelve hundred cars operated therein pass through some part of that district on every trip, coupled with the further fact that the narrowest and most involved streets of the city are within that area. The problem is still further complicated by the position of the Common and Public Garden, and the fact that on one side they adjoin Beacon Hill, which is impassable for street cars or heavy teams, thus forcing all street cars, as well as teams and vehicles coming from a wide area, to the southerly side. The Common was laid out as such when the Back Bay district was, in fact, a "bay" and it was no obstacle to business; but now that the whole district is filled in between the old mill-dam and Roxbury, and has become densely populated, and affords the most attractive of all the entrances into the city, there is no doubt that the Common is located in the worst possible place so far as interference with business is concerned. As an attempt to remedy this difficulty a subway is now in process of construction, leading through the district where the greatest congestion of travel takes place, for the use of street cars, but whether this will be a complete remedy is a question yet to be answered.

These facts are to be taken into account in considering the street railway business of Boston. In fact Boston is the most difficult and expensive place for that business in the country, not only from the insufficiency of the streets, but the ordinary severity of our winters, the great cost of supplies, the rates of wages, and the higher grade of service demanded.

The difficulties thus encountered in Boston to some extent apply to all the street railways of the state. In the same connection it should be stated that the early street railways in Massachusetts were deemed and were, in fact, experiments. Consequently the original charters gave the companies no permanent tenure, rights or privileges. Such rights are absolutely indispensable to capital, but the companies have never been able to obtain them; and in consequence they have always been an object of attack by politicians and others. When the street railway started in other states it was no longer an experiment, and permanent rights, or rights for a term of years, have uniformly been granted. Consequently Massachusetts street railways are actually suffering from the enterprise of their founders.

It is a singular anomaly that money invested in private enterprises which are purely selfish is much safer than the capital invested in street railways for a quasi-public purpose; and so invested because at the outset the state and municipality deemed such enterprises so hazardous that they would not undertake them themselves.

In 1886 a new street railway was organized for the purpose of developing a beautiful area in the town of Brookline and connecting the same with Boston through the Back Bay. Although not originally planned, complications led the promoters of the enterprise to purchase a controlling interest of all the street railways entering Boston except the Lynn and Boston Road; and a consolidation of the same followed in 1887 under the name of the West End Street Railway Company.

The Lynn and Boston, which extends through the whole eastern portion of the State as far as Beverly, is the only road entering the heart of the city outside of the West End Company. The West End Company operates cars in eight cities and three towns, and does about sixty-five per cent. of the street railway business of the state. The Lynn and Boston road, which is the second in size, operates in six cities and twelve towns, doing about fifteen per cent.

Mr. Henry M. Whitney was the head and front of the new enterprise, and the first president of the consolidated company.

The congestion of travel in Boston had been a grievance of long standing, and to that problem he addressed himself. It was soon found that the number of cars could not be diminished. The problem thus resolved itself into the securing for use some other power than horses, thus saving the room which horses must occupy in the street. There are about 400 cars in the congested district of the city at all hours of the day, and in case of blockade that number increases very rapidly. The saving of street space by the disuse of horses with 400 cars is about $1\frac{1}{4}$ miles. The use of cable power was first considered but found impracticable, owing to the crookedness of the streets. Electric power for such purpose was then in its infancy, no really practical road being in existence. The management, however, decided that the difficulties of that system were not insuperable, and began to run some cars by that method in 1889. Of course, many mistakes were made, and many costly experiments; but perseverance triumphed in the end, and the world owes the rapid development of the electric system to the West End Company, its president and directors. It is perhaps worth mentioning here that J. B. Richardson, then corporation counsel of Boston and now judge of the Superior Court, rendered an opinion in reply to inquiries by the Board of Aldermen, that poles and wires for the electric propulsion of street cars could legally be erected and maintained in the public streets,—an opinion of great consequence in the early stages of the enterprise.

Such has been the growth of the street railway systems in Eastern Massachusetts that at the present time passengers can ride continuously from Boston to Nashua, N. H., using the cars of the West End, Lynn and Boston, Wakefield and Stoneham, Reading and Lowell, Lowell and Suburban, and Nashua Street Railway companies. At Lowell a passenger can branch off to Salisbury Beach, a distance of thirty-seven miles, using the cars of the Lowell, Lawrence and Haverhill and the Haverhill and Amesbury companies. From Boston a trip can also be made to Pigeon Cove, a distance of forty-one miles, using the cars of the Lynn and Boston, Gloucester Essex and Beverly, Gloucester, and Gloucester and Rockport companies; or from Boston to Brockton, a distance of twenty-two miles, using the cars of the West End, Quincy and Boston, Braintree and Holbrook and the Brockton companies; or to Norwood, nineteen miles, riding on the cars of the West End, Norfolk and Suburban and Norfolk Central. The longest continuous ride which can to-day be taken in Massachusetts by street cars would be from Hopedale through Boston and Lowell to Salisbury Beach, a distance of 104 miles. Before the season of 1897 is completed it is expected that connections will be made at South Framingham, so that a continuous ride can be taken from Boston to Worcester; and also a line is to be built connecting Brockton and Taunton, so that a continuous ride could be taken from Boston to Taunton, Fall River or New Bedford. On trips of this kind a passenger can average a speed of ten miles an hour; and with open summer cars these rides are so delightful and inexpensive that they are taken by thousands of people every day. It is probable that in the near future such trips will be taken substantially over the whole State; and will afford a summer outing of a week or two unrivalled in satisfaction and in cheapness.

Of the three hundred and fifty-two (352) cities and towns in the state of Massachusetts, one hundred and fifty-one (151) have street railway facilities. The eastern part of the state, and in particular the cities and large towns, are practically gridironed with a network of tracks, affording well-nigh perfect accommodation.

The following will give the dates on which street cars first began to run in several important cities of the state:

Salem	1863	Newburyport	1872
Worcester	1863	Fall River	1880
Lowell	1864	Brockton	1881
Springfield	1870	Fitchburg	1886
New Bedford	1872	Gloucester	1886

The following table gives the statistics showing the magnitude of the roads in the state, and the amount of business done by them. Those roads against which the tables show a blank, except as to amounts of track, are leased to and operated by other companies.

	Miles of Track.	No. of Cars.	Miles Run.	Passengers Carried
Athol & Orange,	7.32	10	163,797	813,689
Beverly & Danvers,	3.16	2	13,755	39,812
Blackstone Valley,	3.49	..	..	..
Boston & Chelsea,	4.15	..	..	..
Boston & Revere Elec.,	4.23	..	..	..
Braintree,	7.42	5	196,620	631,902
Braintree & Weymouth,	12.12	20	329,374	912,930
Brockton,	42.98	112	1,291,633	6,227,923
Brockton, Bridgewater & Taunton, Commonwealth Ave. (Newton),	4.70	12	83,999	205,137
Conway Electric,	5.78	2	217,296	35,270
Cottage City,	5.89	10	32,406	108,625
Dartmouth & Westport,	9.68	32	351,740	684,654
Dighton, Somerset & Swansea,	12.51	28	331,828	738,529
East Middlesex (Malden, etc.),	18.31	..	..	..
East Wareham, Onset Bay and Pt. Ind.	3.02	13	12,160	47,906
Fall River,	2.69	6	52,142	110,663
Fitchburg & Leominster,	18.24	37	631,137	2,148,723
Framingham Union,	7.35	17	82,073	400,120
Gardner Electric,	4.45	6	79,058	369,542
Globe (Fall River),	27.71	100	1,243,051	6,326,237
Gloucester,	9.58	24	257,613	1,279,711
Gloucester, Essex & Beverly,	22.90	23	304,085	1,114,245
Gloucester & Rockport,	1.53	..	..	..
Greenfield & Turner's Falls,	13.27	13	160,078	703,558
Hanover,	5.25	6	39,855	101,797
Haverhill & Amesbury,	33.05	56	401,160	1,453,567
Haverhill, Georgetown & Danvers,	5.83	6	33,731	156,308
Hingham,	14.38	20	135,927	460,347
Holyoke,	24.48	69	803,712	3,440,500
Hoosac Valley (No. Adams),	12.10	29	279,480	1,341,283
Hull,	1.83	7	16,305	112,898
Interstate Consolidated (of R. I.),	24.64	55	652,577	2,366,481
Leominster & Clinton,	12.17	14	122,306	468,472
Lowell, Lawrence & Haverhill,	56.28	143	1,443,730	8,205,411

	Miles of Track.	No. of Cars.	Miles Run.	Passengers Carried.
Lowell & Suburban,	62.38	144	1,802,093	7,680,940
Lynn & Boston,	124.58	519	5,379,210	26,791,811
Malden & Melrose,	6.76			
Marlborough,	7.94	14	220,151	722,857
Martha's Vineyard,	1.00		1,754	19,571
Milford, Holliston & Framingham,	12.11	11	122,231	508,172
Milford & Hopedale,	2.44	4		
Montague,	6.76	4	31,310	56,538
Mystic Valley,	3.28	2	30,324	99,362
Nantasket Electric,	1.74			
Natick & Cochituate,	9.50	15	189,767	754,408
Newburyport & Amesbury,	19.78	41	342,232	1,367,851
Newton,	10.45	32	341,244	1,753,796
Newton & Boston,	5.50	16	175,949	610,765
Newtonville Watertown.	2.13	4	45,344	175,246
Norfolk Central,	4.66	11	5,033	19,044
Norfolk Suburban (Hyde Park, etc.),	11.55	28	382,962	2,077,947
Northampton,	16.24	30	496,648	1,857,171
North End (Worcester),	5.13			
North Woburn,	7.55	12	118,832	428,796
People's (West Newbury), . . . . .	.03			
Pittsfield Electric,	8.70	15	130,106	751,041
Plymouth & Kingston,	9.18	12	177,876	655,556
Quincy & Boston,	22.30	42	397,014	2,114,175
Randolph,	2.07		16,665	38,934
Reading & Lowell,	11.98	7	142,797	347,522
Rockland & Abington,	14.09	26	335,441	1,426,690
Rockport,	7.50	8	26,585	215,079
Shelburne Falls & Colrain,	6.53			
Siasconset (Nantucket),	1.14			
Somerville,	5.40			
Southbridge & Sturbridge,	7.84	10	12,442	72,731
South Middlesex (Natick),	13.51	16	249,277	1,016,782
Springfield,	60.21	175	2,358,622	10,163,011
Taunton,	18.40	52	340,523	1,595,415
Union (New Bedford),	18.43	88	747,915	5,092,087
Wakefield & Stoneham,	15.42	20	335,780	1,309,421
Warren, Brookfield & Spencer,	13.09	11	69,699	307,591
Wellesley & Boston,	2.34	4	75,274	221,415
West End (Boston),	284.18	2,422	25,841,907	166,862,288
West Roxbury & Roslindale,	7.38	16	6,574	26,439
Winnisimet (Chelsea),	2.21			
Woburn & Reading,	5.16	5	32,768	91,650
Woonsocket (of R. I.),	13.39	23	211,000	843,154
Worcester Consolidated,	32.34	139	1,929,992	9,744,025
Worcester & Shrewsbury,	70		19,818	86,000
Worcester & Suburban,	23.14	48	619,408	3,101,367
Woronoco (Westfield),	4.36	14	88,490	346,055

The total capital stock of Massachusetts street railway companies in 1896 amounted to \$30,727,817.50. The total funded debt was \$24,236,000, and the total unfunded debt \$6,153,896. The total number of street railway companies was eighty-three, of which forty paid no dividends whatever, and forty-three paid dividends ranging from one and one-fourth to ten and one-half per cent.

The following table gives a financial statement of all the companies whose earnings exceed \$100,000.

RAILWAY COMPANIES.	Capital Stock.	Earnings.	Expenses.	Net Earnings.	Interest, Taxes and other Charges.	Dividends.	Surplus for the year.
West End St. Ry. Co. (Boston)	\$15,485,000	\$8,341,958	\$6,334,619	\$2,007,339	\$794,600	\$1,147,950	\$64,789
Lynn & Boston R. R. Co.	1,220,800	1,425,921	838,329	587,592	488,187	92,832	6,573
Springfield St. Ry. Co.	1,000,000	521,673	321,586	200,087	48,431	80,000	71,656
Worcester Con. St. Ry. Co.	700,000	491,375	371,531	119,844	61,056	56,000	2,788
Lowell, Lawrence & Haverhill St. Ry. Co.	1,520,000	410,000	247,791	162,209	86,872		75,337
Lowell & Suburban St. Ry. Co.	800,000	392,738	243,575	149,163	79,095	36,000	34,068
Globe St. Ry. Co. (Fall River)	650,000	323,520	208,940	114,580	78,019	19,500	17,061
Brockton St. Ry. Co.	566,000	306,865	190,513	116,352	48,947	35,760	31,645
Worcester & Suburban St. Ry. Co.	350,000	224,144	137,649	86,495	30,535	28,000	27,960
Fitchburg & Leominster St. Ry. Co.	544,500	144,635	92,573	52,062	25,427	21,700	4,935
Interstate Con. St. Ry. Co. (Attleborough and Wrentham)	250,000	128,186	90,278	37,908	10,662	20,000	7,246
Dartmouth & Westport St. Ry. Co.	300,000	120,922	87,671	33,251	6,238	15,500	11,513
Quincy & Boston St. Ry. Co.	150,000	111,141	86,971	24,170	8,043	14,250	1,877
	406,400	101,830	66,308	35,522	5,911	21,000	8,611

ADVANTAGES AND DISADVANTAGES OF STREET RAILWAYS.—The street railway has sometimes been described, not inaptly, as a “necessary nuisance.” This is a concrete way of expressing a general truth applicable to most things in this world, that good and evil are united inseparably. I refer not simply to a union of different things, like that of the wheat and the tares mentioned in the Scripture, but to the fact that the same thing is both good and bad from different points of view. Thus a railway is impossible without a rail, and a street railway is impossible unless its rails and its cars occupy a street. All its distinctive advantages and disadvantages are necessarily involved in the same fact. The rail in the street is a nuisance to light vehicles; and the use of the streets by numerous cars is a source of danger and inconvenience in many ways. If the operation of street cars could be confined to some lonely field in the remote country, they would neither be unsightly nor in the way, nor a source of accident or apprehension; and they could be run on time, never be crowded, nor offend by noise—in short, would be quite unobjectionable, and unfortunately, quite useless also.

Crowded thoroughfares are a necessary incident to a large city, and means of transit for a numerous population are indispensable, and the transit mainly must be through those thoroughfares. The problem is how it can best be accomplished. Five hundred thousand fares, in round numbers, are collected daily on the West End lines, and substantially all the passengers, not to mention those who walk or use some other conveyance, pass through a small district in Boston. This is a fact, without which Boston would not and could not be Boston. Provided the sidewalks were adequate to enable everybody to walk, which they are not, only a limited number would do so, and in a short time there would be no congested district, but the business, like the people, would be somewhere else. If some other means of conveyance were possible, it would necessarily be too expensive for free and general use; but such other means of conveyance is physically impossible for want of space, and would be vastly more dangerous than the street car, if attempted.

The use of the rail makes it easy to know the course a car will take, and to guard against it, but there is no such certainty as to a carriage; and cars following one another closely on a rail can carry these vast numbers and carry them exactly where they wish to go in comparative security and comfort, and for a nominal sum.

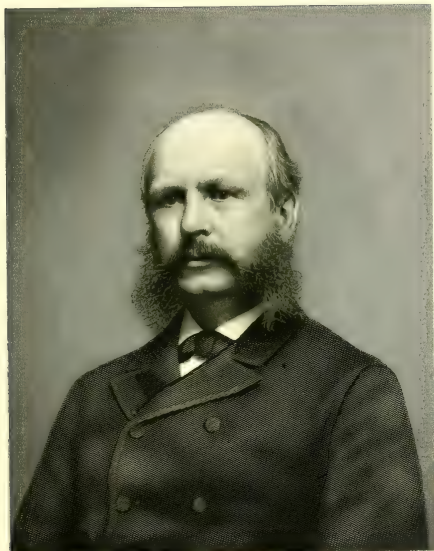
Most of the criticism of street railways is inconsiderate, and grows out of an imperfect appreciation of the truth that the advantages and disadvantages are inseparable. It is impossible for cars or any vehicles to go at a reasonable rate of speed and not cause many accidents, some of them fatal ; nor can cars enough be run to accommodate the people without occupying a great deal of space, and if they run where they will best accommodate they will occupy very important space.

Since it is the street car that has rendered possible the concentration of business in Boston, and only the street car that can keep it so, it is worth considering what the advantages of concentration are, if any. They are several. It leads to great convenience and economy in doing business. Men in the same profession or line of business find it a great advantage to be near each other, and near those engaged in a kindred business, and all like to be near the banks and other similar institutions. The fact that a whole community can be brought to the very doors for five cents makes large retail establishments possible, and hence lower prices to the consumer, and larger assortments from which to select. The numerous employees and the working classes generally can occupy cheap and wholesome places in the suburbs, and yet reach their places of employment at a price they can afford to pay ; and thus are greatly benefited in a financial as well as a sanitary and moral point of view.

Thus life is made more cheerful and wholesome, and the cost of living is greatly cheapened. The aggregate of saving to the community from this concentration of business, in economy of doing business, and cheapening the cost of living, amounts to an enormous sum ; and the benefit of suburban homes in the mere prevention of disease is manifestly so great as to render street car accidents a trifle in comparison. Fifty deaths from typhoid fever would make less impression on the average person than a single fatal accident on the streets, but the ratio is none the less fifty to one.

One of the most significant financial benefits from street railways is their effect on the values of real estate. That they should advance the value of land in the suburbs of a city is manifest, but in fact they effect a much greater increase in the business district of the city itself. Since 1856, when the street cars first started in Boston, the real estate valuation of Ward 10, which is the principal business ward of the city, has had an increase exceeding the entire valuation of any other ward. Yet Ward 10 was as thickly covered with buildings in 1856 as it is now. In suburban districts excellent building land, if a mile distant from any public convenience, has a small market value ; but no sooner is a street car line extended to a point near that same land than it becomes available for house lots and commands a large price. If that land be several miles from the city the electric car service will cause a much more rapid increase in its value than a horse car service, since the latter is much inferior for long distances. It has been computed that the increased value of real estate due to the street railway in towns and cities accommodated by the West End Road is so great that the annual interest on it would equal the entire capital stock of the road. It is unquestionably a moderate statement to say that all the financial benefit to the public from the street railways of Massachusetts is every year a sum equal to the entire capital stock and debt of the several roads. It thus appears that the investment by the stockholders yields the public vastly greater revenue than the stockholders themselves receive.

WHY STREET RAILWAYS ARE UNPOPULAR.—The question naturally arises why the street railway, being so undeniably useful, is so unpopular. The Massachusetts roads are in no wise exceptional in this respect. If we go to any city in the country and pick up the daily papers, we find as many complaints, and the same kind of complaints which so regularly appear in our papers. The cause in part grows out of the



Prentiss Cummings.

unreasoning belief, before alluded to, that by good management inconsistent things might be accomplished, as for example, that cars enough might be run to give every passenger a seat, and yet not occupy space in the streets.

There seldom occurs a street-railway hearing where there is not great complaint of lack of accommodations, and an equal complaint that the road "owns the streets." Again, as to crowded cars at times, it is not considered that the cars must run at stated intervals in order to serve their purpose, while people ride just when they please, so that the demand and supply cannot possibly coincide. Again, it is not considered that the cars must be so run as to pay, in order to run at all. It is here, I think, that we find the chief reason why the public are always so hostile to the street railway—that they expect too much for five cents. I have many times asked our critics if they could tell me of any other way in which they could get so much for five cents as from the West End Railway, and there never has been one who has not admitted that there was nothing. In fact, the low fares, considering the service rendered here, are nothing less than wonderful. Again, a road with three or four thousand drivers and conductors, as is true of the West End, must have some who are incompetent and unfit, and who at times give way to infirmities of temper, which is often severely tried. The street car is in such universal use, and enters so intimately into our daily lives, that, sooner or later, everybody has real as well as fancied grievances, and attributes to the malevolence or stupidity of the management mischiefs which must happen in the nature of things. In truth, all the employees of the street railway, from the president to the conductor, occupy, in their relations to the public, a most trying position, and one replete with detail and vexation. It is usually conceded that the street-car service in Boston is the best in the world; and, from very considerable experience, I say without hesitation that the service has been better than the road really could afford to give, and that the officers of the road have usually understood the problems, with which they had to deal, much better than their critics, and have been every bit as public-spirited.



PRENTISS CUMMINGS.

PRENTISS CUMMINGS was born in Sumner, Maine, September 10, 1840. Owing to a theory of his mother that every man, whatever his life-work, should learn a trade, at the age of thirteen he entered the printing-office of a local newspaper, where he served a full apprenticeship of three years, and worked one week as a journeyman printer. He then began to fit for college at Paris and Hebron academies in Maine, but completed his course at Phillips Academy, Exeter, N. H. He graduated from Harvard College with honor in 1864. During the following year he had charge of the High School in Portland, Maine, and commenced the study of law in the office of Hon. Nathan Webb, now United States judge for the District of Maine. The following year (1865-6) he entered the law school of Harvard University, but almost immediately, and without notice, was appointed tutor in Latin in the collegiate department, taking the classes of Professor E. W. Gurney, a very distinguished scholar, who was then made professor of philosophy. He continued in the Latin department until 1870, when he was admitted to the Boston bar.

From 1873 to 1881 he was in the office of the United States Attorney in Boston

as chief assistant, and took charge of the trial of nearly all the cases in which the United States were party during those years. At that time there was a long legacy of revenue cases, which arose during the war, which involved vast sums of money.

In 1881 he resumed the general practice of law. In 1881, 1882 and 1883 he represented the principal business ward of Boston (Ward 10) in the city government, and in 1864-65 represented the same ward in the legislature. In 1885 he was elected president of the Cambridge Railroad Company, and continued in that position until 1887, when the general street railway consolidation in Boston took place. Since that time he has been vice-president of the West End Street Railway Company, his duties being largely those of a legal adviser.

In 1880 he married Annie D. Snow, of Cambridge, and resides in the town of Brookline, where he is a member of the school committee, trustee of the public library, and also of the local savings bank.

He is a member of a large number of clubs and literary societies, and for diversion plays chess, and is an enthusiastic student of classical literature, particularly of Homer.

HENRY M. WHITNEY.

PROMINENTLY identified with the business interests of Massachusetts, and ranking as one of New England's leading citizens, is Henry Melville Whitney, the subject of this sketch. His father, General James S. Whitney, was a Democrat of the Jacksonian school; a man of the strictest integrity and the idol of the community where he lived. It was his vote that decided the election of Charles Sumner to the United States Senate. He was prominently identified with the politics of the state, was superintendent of the United States Armory at Springfield from 1854 to 1860, and later was collector of the port of Boston. He died October 24, 1878.

Henry M. Whitney was born in Conway, Mass., October 22, 1839. His early education was acquired in the public schools, which was supplemented with a course of study at Williston Seminary, at Easthampton. He was a clerk in the Conway Bank three years, and later came to Boston and passed two years in the Bank of Redemption, was also in the naval office, and was afterwards engaged in the shipping interests in New York. He became Boston agent of the Metropolitan Steamship Company in 1866, and four years later he became president of the company, a position which he still holds.

Notwithstanding Mr. Whitney's connection with the shipping interests of Boston and the Dominion Coal Company of Canada, he is, perhaps, best known to the citizens of Massachusetts as the president of the West End Street Railway Company, with which he was so long and prominently identified. His management of this company was not only acceptable to the stockholders and the public, but to the employees as well. All concerned were unqualified in their praise of Mr. Whitney's administration of this vast interest. He was largely interested in the Brookline Boulevard and in the development of that locality. In 1893 he organized the Dominion Coal Company, and became its president, a position which he still holds. He is also a director in the Boston and Maine and Maine and Central Railroads, and in the American Express Company. Mr. Whitney is a public-spirited citizen, and all measures tending to advance the interests of Boston and Brookline receive his hearty support. Politically he is a Democrat.



Mr. Whitney

CALVIN ALLEN RICHARDS.

CALVIN ALLEN RICHARDS was born in Dorchester, Mass., March 4, 1828. His boyhood was passed in and around Boston, and he received his education in the public schools, although he left school at an early age and assisted his father, Isaiah D. Richards, in his business.

He soon exhibited the wonderful executive ability, which was so powerfully felt in his after-life ; and his father leaned on him for assistance and counsel.

He denied himself many of the pleasures of young men to devote his thoughts and attention to his business, and to the care of his mother, who was delicate during the closing years of her life, and to whom he was most tenderly attached.

On February 17, 1852, he married Ann R. Babcock, daughter of Dexter Babcock, of the wholesale grocery firm of Babcock & Coolidge, who lived an honored, retired merchant until his ninety-sixth year.

Two children were born of this union,—a son, who was instantly killed by lightning in 1863, and a daughter who survives him.

He remained in business with his father and three brothers until 1861, when he opened a large establishment on Washington street, and it was while he was in this location, and during the years of the Civil War, that he amassed the bulk of his fortune. He was in the common council of Boston in 1858–59 and '61; and in 1862 he was an alderman.

This parliamentary experience he valued, and he was eagerly sought for by all dining-clubs, having always the power to move a large assembly to tears or laughter, as was his wish, but his rare wit was always present.

In 1873 he went to Europe with his family, and had a very happy and satisfactory journey.

In 1874 he was induced to relinquish business cares somewhat, and became a prominent director in the Metropolitan Street Railroad.

There he soon made his rare executive power felt, and he was asked to become its president, which he did, and found his office no easy one.

The railroad was on the verge of bankruptcy, and the former managers had permitted a powerful rival corporation to spring into existence.

Mr. Richards desired to restore his railroad to its former position, and how well he succeeded is known to all street railway men in the United States. It was a grand achievement, and considered wonderfully so by all, as, when he entered this business, he knew nothing of street railways, always having been a merchant.

The Metropolitan railroad became one of the largest and best managed in the country, rich and strong, and the methods of its president were copied by many other corporations at home and abroad.

In all important debates, either in the legislature or city government, he always argued his cases alone and unaided, and with his strong personal magnetism, shrewd common-sense, and thorough knowledge of the details of his railroad in statistics, etc., he almost always succeeded in carrying conviction to the minds of those who, at the outset, were most bitterly and strenuously opposed to him.

Those most prominent in the legal profession, who were representing street railways in public hearings, always found Mr. Richards a powerful antagonist, and felt sometimes he had mistaken his vocation in life, often telling him his strong points in arguments were worthy one of their own brotherhood.

His stewardship in this large corporation was most faithfully and conscientiously fulfilled, each important movement receiving his own personal supervision, and he labored most zealously for the interest of his stockholders, feeling it to be a sacred trust, while at the same time he tried to satisfy that most exacting body—the public.

Mr. Richards had also a most wonderful hold upon the hearts of all the men in the employ of the great railroad, and although a firm and strict master in all points of duty on the part of any man in serving the public in a respectful and courteous manner, no one of the employees could ever come to him with any unjust claim made against him, without having justice and reparation demanded from the person who appeared before the president with his complaint.

No one of the men could have illness or death come to him or his dear ones without either a personal call from Mr. Richards, or a speedy messenger sent with pecuniary aid, or flowers and delicacies for their sick.

In all the labor disturbances which occur in large corporations employing so many men, it was his habit to appear personally before their different organizations, and before leaving they were satisfied and happy, cheers taking the place of any feeling of unrest or uprising in opposition to established rules.

The warm love of the men for their president was most touchingly displayed by heartfelt expressions of sympathy tendered to his family after his death; they all felt they had lost a personal friend and adviser, to whom they could ever come for comfort or counsel.

In 1885 Mr. Richards became the president of the American Street Railway Association, composed of the executive forces of almost all the railroads in the United States and Canada, and until he severed his connection with railroad life, he always greatly enjoyed attending the annual conventions of this organization held each year in the different cities.

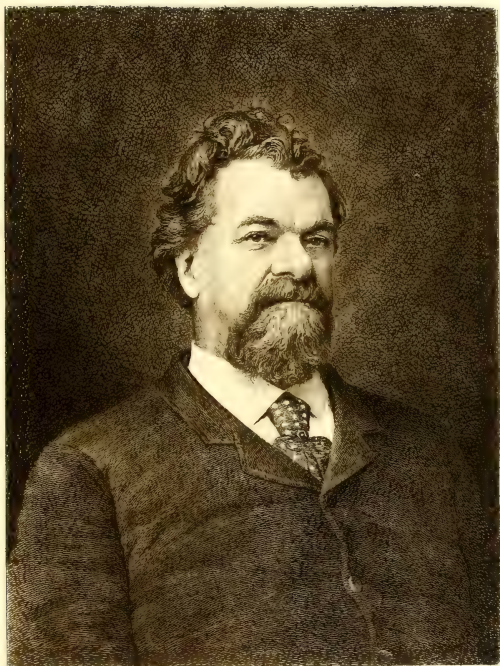
At these conventions he made himself a power by his wonderful foresight and wisdom, and was almost the first man to predict the electric power for street cars, which he did in a most thrilling speech at the convention banquet, held at the Fifth Avenue Hotel in New York, October, 1884, and those who were present will not soon forget it.

He was greatly beloved by his associates in this organization, and always received an earnest and heartfelt invitation to attend the conventions, long after he turned aside from railroad life.

After the consolidation of all the street railways of Boston, the Metropolitan, with the others, being absorbed in the West End, a complimentary banquet was given Mr. Richards by his directors, and with earnest expressions of affection and regret in severing their connections with their president, they presented him with a massive bronze, on which was a silver plate inscribed,

PRESENTED TO
CALVIN A. RICHARDS,
BY THE
METROPOLITAN RAILROAD COMPANY,
IN RECOGNITION OF HIS VALUABLE SERVICES AS PRESIDENT,
BY VOTE OF THE DIRECTORS, OCT. 24, 1887.

This testimonial of regard from his corporation touched the president most deeply.



Wm. Richard

Mr. Richards then became associated with the new organization as general manager under President Whitney, but after a few weeks in that position he resigned.

For a short time afterwards he was connected with the Boston Heating Company, but soon retired to private life, and purchased and entirely remodelled the large office building, 114 State street, Boston, which bears his name. In this building he had a finely appointed office, where his business friends enjoyed meeting him, and where he managed his own personal matters in real-estate, etc.

The construction of this large building was the closing act in Mr. Richards' business life, as he was stricken with "la grippe" immediately after its completion in January, 1890; and he never was well after that date, although he recovered sufficiently to visit the Isles of Shoals in the summer seasons, and journeyed to the South in the spring of 1891, when he had a very dangerous and critical attack of "angina pectoris," which was his unfortunate inheritance from the terrible eight weeks' illness with "la grippe" in 1890.

This heart-rending experience occurred on the vestibule train from St. Augustine to New York, but fortunately a physician was at hand, and he was restored to his former condition, although far from a well man.

In the autumn of 1891, he visited Richfield Springs, N. Y., for the benefit of the sulphur baths, but there he had another dangerous attack of "angina." By the skill of a prominent physician he was saved again, and in the early part of the winter was able to go down to his office in the Richards building, on pleasant mornings, but always in his carriage, as he was unable to walk at all the last few months of his life without severe pain in the chest, and he greatly feared another attack.

His family, relatives, and friends saw him failing quite rapidly for about two months before his death. He had been out on Monday morning (February 15, 1892) for a short drive, and had answered a telephone call but a short half hour before he fell dead, his death being instantaneous, without one moment of suffering.

His funeral was attended by an unusually large number of prominent business and professional men, and the floral tributes were very numerous and elegant.

His life needs no eulogy for those who knew him,—a strong, firm, conscientious business man, who achieved a wonderful success, leaving an ample fortune. He was a kind and sympathetic neighbor, who could never listen to a tale of distress or sorrow without tears in his eyes, and ready pecuniary aid; while his tender, loving home-life those only can appreciate who knew him there. He always extended such a warm and genial welcome to all his guests, and his cordial manner and hearty grasp of the hand were ever extended to all those friends who crossed the threshold of his happy home, where he loved to linger, always preferring life by his own hearthstone to that enjoyed by so many gentlemen in a life in the world and at their clubs. Mr. Richards, although exceedingly social and warm-hearted, was ever happier in the companionship of his own family and his books, being a great reader, and thoroughly enjoying his evenings by his fireside with his favorite authors.

He possessed a most powerful personal magnetism, even little children becoming exceedingly fond of him after a few hours spent in his company; while the friendships he made in traveling and from chance meetings in life were always strong and enduring, as his genial smile and tender greetings ever awakened the warmest response in the hearts of those with whom he came in contact. His cheerful disposition was always so strongly shown throughout his life, especially in those hours of trial which come to us all in this world.

As husband and father, his relations were inexpressibly beautiful, and his death

has left a terrible void in the home where he died so happily free from suffering, amid every luxury and comfort.

As has so often been said of him, to know him was to love him.

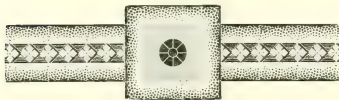


AMOS F. BREED.

AMONG the men prominently identified with the street railway business in the vicinity of Boston is Amos F. Breed, of Lynn.

He is descended from Allen Breed, who was born in England in 1601, and settled in Lynn in 1630, where he died, March 17, 1692. Allen Breed was one of the grantees named in a deed from the Indians in 1640, of South Hampton, Long Island.

In 1872 Amos F. Breed became president of the Lynn and Boston Street Railway Company, which operate cars between Lynn and Boston, and has held that office to the present time. During his administration the road has largely increased its facilities and business. He was also one of the projectors of the East Middlesex Street Railway Company, which included the road from Chelsea to Malden, Melrose, Stoneham and Woburn. These roads were finally leased to the Lynn and Boston Company, and in 1892 the North Shore Traction Company purchased the Lynn and Boston road. He is president of the First National Bank of Lynn.





H. J. Breed

CHAPTER CLIX.

BIOGRAPHICAL.

PELEG SPRAGUE.

JUDGE SPRAGUE was descended from a distinguished ancestry. In the paternal line he was descended from William Sprague, who came to Salem in 1629, and through his grandmother from Francis Sprague, who came to Plymouth in the ship "Anne" in 1623. He thus carried in his veins both Pilgrim and Puritan blood, and when the two currents mingled in the person of his father, like two flames, they not only re-enforced each other, but produced a stock of more than double brilliancy.

William Sprague, son of Edward and Christian Sprague, of Upway, in Dorsetshire, England, was born in 1609, and with two brothers, Ralph and Richard, came to Salem with Higginson in 1629. He married, in 1635, Millicent, daughter of Anthony Eames, of Charlestown, where he at that time lived, and removed with his father-in-law to Hingham, Mass., in 1636. He had eleven children, and died October 26, 1675.

Samuel Sprague, son of William, was born in Hingham in 1640, and removed to Marshfield, Mass., in 1664. He was married twice: first to a wife named Rebecca, and second to Sarah, daughter of Thomas Chillingworth, of Marshfield, and died in 1710. Besides holding many local offices for many years, he was chosen in June, 1686, "Secretary of the General Court and Recorder of the Court of Assistants," and, except during the interruption of the government by Andros from December 20, 1686, to April 18, 1689, held that office until the union of the colonies in 1692.

Samuel Sprague, son of Samuel and Sarah, born in Marshfield in 1674, married Bethiah, daughter of Samuel and Mercy (Ford) Thomas, of Marshfield, and died February 15, 1764. His son, Phineas, born in Duxbury in 1714, married Mercy, widow of his cousin, Peleg Sprague, and daughter of Nathaniel and Zerviah (Sprague) Chandler. Zerviah Chandler was the daughter of William Sprague, granddaughter of John, and great-granddaughter of Francis, who came in the "Anne" in 1623, and settled in Duxbury in 1637.

Seth Sprague, son of Phineas and Mercy (Chandler) (Sprague) Sprague, was born in Duxbury, July 4, 1760, and married, in March, 1779, Deborah, daughter of Abner and Deborah (Bisbee) Sampson. He served as a soldier in the Revolution, and was for many years engaged in trade and navigation in Duxbury. He held many offices, among which were those of United States assessor, town treasurer, representative and senator, councillor, presidential elector, president of the Plymouth County Abolition Society, and vice-president of the Massachusetts Abolition Society, and died in Duxbury, July 8, 1847. His children were Phineas (born November 2, 1779, who married Eunice Freeman, Hannah Brown, and Betsy, widow of Silas Tobey

and daughter of Dr. Jabez Fuller, of Kingston); William (December 28, 1780, who married Patience Rogers and widow Priscilla (Barker) Pierce); Deborah (August 19, 1782, who married Ahira Wadsworth); Welthea (June 2, 1784, who married Thomas Winsor); Ruth (December 4, 1785, who married George Soule); Seth (November 21, 1787, who married Welthea, daughter of Isaac Little); Mercy (December 25, 1789, who married Charles Soule); Zerviah (September 5, 1791, who married Perez Thomas); Peleg (April 27, 1793); Caroline (October 6, 1795, who married Wm. Sampson); Hannah (September 26, 1797, who married Ralph Partridge); Judith (April 25, 1799, who married Gersham B. Weston); Nancy (April 23, 1801, who married Samuel Loring); Lucy (April 2, 1803, who married Rev. Robert W. Cushman), and Sarah (September 20, 1805, who married Wm. Henry Sampson).

Of William Sprague, one of the above children, the writer has no recollection, but of the other three sons, Phineas, Seth, and Peleg, the subject of this sketch, all of whom he remembers distinctly, he can say that he has never seen a group of brothers more distinguished in their form and feature, or more expressive in their personalities of mental strength and vigor. In all of them there was the overhanging brow, which was conspicuous in the face of Daniel Webster, and which is rarely found in the faces of ordinary men.

Peleg Sprague, the subject of this sketch, was the fourth son of Seth and Deborah (Sampson) Sprague, and was born in Duxbury, as above stated, April 27, 1793. He received his early education at the public schools in Duxbury, and fitted for college partly under the Rev. John Allyn, of Duxbury, but mostly at the Sandwich Academy. While in Sandwich he saved the life of a fellow-student from drowning, by swimming out to his assistance and bringing him on shore in an unconscious condition. He graduated at Harvard in 1812, and on taking his second degree in 1815 had the highest honor, an English oration. Among his classmates were Edward H. Robbins, Henry Ware, Franklin Dexter, James Henry Duncan, Charles Greeley Loring, and William Turell Andrews. Of these, four received the degree of LL.D. from their Alma Mater: Mr. Sprague in 1847, Mr. Loring in 1850, Mr. Dexter in 1857, and Mr. Duncan in 1861, but none had a more distinguished career than Mr. Sprague. He studied law for a time in the Law School of Litchfield, Conn., established by Tappan Reeve, Chief Justice of the Supreme Court of Connecticut, and then the only law school in the country, having as a companion in the school, his classmate, Mr. Loring. He finished his law studies in the offices of Levi Lincoln, of Worcester, and Samuel Hubbard, of Boston. He thus enjoyed the best opportunities for a thorough preparation for a professional career. (Mr. Lincoln graduated at Harvard in 1802 and studied law with his father, Levi Lincoln, and had been in practice eight years, having already acquired a high position at the Worcester bar. Mr. Hubbard graduated at Yale in 1802, and, having practiced in Biddeford, Maine, came to Boston in 1810, and was there associated with Charles Jackson, both he and Mr. Jackson becoming later justices of the Supreme Judicial Court of Massachusetts.)

Mr. Sprague was admitted to the bar at Plymouth, Mass., in August, 1815, and established himself in business in Augusta, in what was then the District of Maine, but a part of Massachusetts. At the end of two years he removed to Hallowell, which town, before the city of Augusta was made the capital of the new state of Maine in 1820, seems to have attracted a remarkable galaxy of able lawyers. There could have been no better school for a young attorney. He was there called upon to enter the arena with men experienced in the profession and unscrupulous in their efforts to crush out youthful aspirants. But among these Mr. Sprague held his own,



P. Sprague

and became so well established in the confidence of the community that he was chosen a representative from Hallowell in the first legislature of Maine in 1820, and re-chosen in 1821. In 1824, at the age of thirty-one, he was chosen a member of Congress, and served until 1829. In the latter year he delivered the oration before the Phi Beta Kappa Society of Bowdoin College. In that year also he was chosen by the legislature United States senator, and served until his resignation in 1835. In Congress his ability and eloquence were soon recognized, and his high personal character won him the esteem and friendship of many eminent men, among whom may be mentioned, more especially, Henry Clay. He was a member of the senate during the first session of the Twenty-first Congress, and took part in the memorable debate on Foot's resolution relative to the survey of the public lands, in the course of which Mr. Webster made his remarkable speech in reply to Mr. Hayne, of South Carolina.

At the close of his senatorial term in 1835, Mr. Sprague removed to Boston. The tide, which, during the days of eastern land speculation, with the call for legal business connected with it, had induced many young lawyers to locate in Maine, had turned, and Boston had begun to draw away from the Kennebec bar men who had won distinction in their profession. Mr. Sprague settled himself at once in practice in his new home, and suffered nothing either in reputation or business by being transplanted to a newer field. The Suffolk bar at that time was, perhaps, the most distinguished bar in the country. It contained only about two hundred members, but it would be difficult, if not impossible, to select from the seventeen hundred lawyers on its list to-day, as many as could at that time be considered as occupying the highest rank in the profession. There were Daniel Webster, Jeremiah Mason, Rufus Choate, James Trecothick Austin, Franklin Dexter, Charles Greeley Loring, Lemuel Shaw, Sidney Bartlett, Benjamin Rand, William Howard Gardiner, Benjamin Robbins Curtis, George Tickner Curtis, Richard Fletcher, Charles Jackson, Samuel Hubbard, Samuel Sumner Wilde, Samuel Dunn Parker, Joseph Story and Simon Greenleaf. The list is a startling one, suggesting, as it does, the mass of mediocrity to be found at the bar to-day.

Among such men Mr. Sprague was thrown on his arrival in Boston, and with them he was called to compete for occupation and rank. But he nevertheless won them both. In the year of his return, he was selected by the Pilgrim Society as its orator, and his address, delivered at Plymouth on the 22d day of December, 1835, gave him a wide-spread reputation as a man of learning and eloquence. In 1841 John Davis, the judge of the United States Court, for the district of Massachusetts, resigned his seat on the bench, after an incumbency of forty years, beginning with his appointment by John Adams in 1801. The writer remembers the quiet but earnest contest for the succession which ensued, and the feeling of resentment against Mr. Webster, who was then secretary of state, entertained by at least one of the contestants, when President Harrison appointed Mr. Sprague to the place. His uncertain state of health induced him to accept the position, which, however honorable, was in a measure a retirement from an active career, though afterwards its duties and responsibilities largely increased, and became very onerous. The appointment was universally acknowledged to be an admirable one. Born and brought up in a town largely interested in navigation, the study of admiralty law had been a congenial one, and the air of an Admiralty Court was not a strange one to breathe. Judge Davis, his predecessor, was a native of Plymouth, as was also his chief competitor for the appointment, and it is no little to the credit of the old colony that the bench of the District Court was honorably occupied by natives of Plymouth and Duxbury, two adjoining towns within its limits, for a period of sixty-four years.

For twenty-four years, until his resignation in 1865, Judge Sprague performed his judicial duties with distinguished ability. During the last years of his service these duties were rendered especially arduous by the novel cases in American jurisprudence arising while the War of the Rebellion was progressing. They became still more arduous on account of an affection of the eyes, which had long troubled him, and which incapacitated him for the work of taking notes, and made even the light of the court-room a serious annoyance. His well-trained and exact memory enabled him, however, to recall the name and testimony of every witness, and to state in his charges or decisions with absolute accuracy and clearness all the evidence bearing on the cases at issue. Exercise indispensable to his health, he was precluded from taking in the sunlight, and the writer remembers to have frequently seen him pacing the floor of Doric Hall in the State House, wholly unobservant of everything about him, and evidently solving some questions of law, which had arisen in a cause or trial.

The affection of his eyes and the condition of his general health became finally so serious that in 1865 he resigned his seat on the bench, and spent the last years of his life in a darkened room, which only mitigated the suffering he patiently endured. His death occurred October 13, 1880. Unlike many members of the bar who, however distinguished, leave nothing behind them but their names buried in the reports, and even there soon forgotten, he left abundant and honorable memorials of his career. A volume of his speeches and addresses was published in 1858, and a volume of his judicial decisions from 1846 to 1861 was published in 1861, and another in 1868. These volumes contain, however, but a small portion of his judicial opinions. Much the greater number of cases that came before him, especially the more important ones, were never reported. These opinions were delivered in language remarkable for clearness, precision and conciseness. Scarcely an unnecessary word was used, yet this brevity was accompanied by a directness and lucidity of expression that prevented any obscurity. The clearness and transparency of style sometimes deceived a careless reader as to the depth of reasoning underneath, as when a reviewer once remarked of a case of shipwreck with escape of survivors, first to an island, and then in a vessel constructed out of the wreck, that it was an interesting narrative, but contained no new points of law, the fact being that much new law was involved in the decision.

The retirement of Judge Sprague called forth widespread expressions of regret and many tributes. Of these we give those of Judge Lowell, his successor on the bench, and the address of the Bar Association. Judge Lowell took occasion, on his first charge to the grand jury, to refer to his predecessor, and among other things said:—"He has occupied this bench for nearly a quarter of a century, and during that period has had occasion, in the discharge of his duty, to consider and decide upon a vast variety of questions in admiralty and maritime law, in commercial law, in the law of patents and in the law of prize, and other matters of which this tribunal and the Circuit Court have cognizance. Questions were presented to him as widely different in the principles on which they are to be decided as the different systems of law that are known throughout the civilized world. To all these he has brought a power of analysis, a clearness and breadth of comprehension, a marvellous penetration and abundance of learning, besides the moral qualities which happily are not so rare upon the bench, that have won for him a judicial reputation second to none of the jurists of our day in America, and which shall endure as long as this is a government of law."

The Bar Association sent the following address written by the Hon. B. R. Curtis :

"TO THE HONORABLE PELEG SPRAGUE :

"*Sir*.—The members of the Bar of the Courts of the United States in which you have presided, during the last twenty-three years, cannot allow you to withdraw yourself from the office of Judge, without an expression of their high estimate of your public services, their profound respect for your judicial qualities and attainments and their grief for the physical disability which has caused your retirement. They esteem it to be due to their country, to you, and to themselves, that they should bear their testimony to the great value of these services, and to the rare combination of intellectual and moral power, which alone could make them possible. They have found you to be not only thoroughly instructed in the common law, but master of those special branches of jurisprudence and legislation, which it has been your peculiar province to administer. They have found in you such power of analysis, as they have not known surpassed united with sound judgment, to weigh its results. They have found in you that absolute judicial impartiality, which can exist only when a tender and vigilant conscience is joined to an instructed and self-reliant intellect, and a firm will.

"And these great powers and attainments have been used by you, so steadily, so patiently, so continuously through more years than the professional life of nearly all of us can number, that we have scarcely known, and your patience and courtesy have never allowed us to realize, that during much of the time you have been a sufferer from physical pain, and during all the time, that you have been unaided in your labors, by that sense, without which, they would have seemed impossible. We are heartily thankful for the great benefits you have conferred, not on us only, but on this community, and on our country, whose judicial bench you have strengthened and illustrated.

"We deplore the cause which has seemed to render your retirement necessary. Would that it were in our power to do something to alleviate your condition, instead of giving expression to our sorrow and to our affectionate respect.

"Signed.

"B. R. CURTIS,

JOHN H. CLIFFORD,

"CHARLES G. LORING,

GEORGE LUNT,

"S. BARTLETT,

G. S. HILLARD,

"CHAS. LEVI WOODBURY,

THOMAS D. ELIOT,

"STEPHEN H. PHILLIPS,

H. W. PAINE,

"JOHN C. DODGE,

RICH. H. DANA, JR.,

"Committee of the Bar."

And on January 9, 1878, thirteen years later, the Bar Association of Boston addressed him as follows :

"TO THE HONORABLE PELEG SPRAGUE,

"the eminent statesman, the eloquent advocate, the learned lawyer and the impartial judge—the Bar Association of the City of Boston send greeting. They regret his enforced absence on this occasion, they sympathize with his sufferings, and they will ever be mindful of the great and pure example of his professional and private life.

"Signed.

"BENJ. F. THOMAS,

"President."

The transmission of this address was accompanied by the following note from the president :

"BOSTON, January 10, 1878.

"*My Dear Sir*.—The address which I enclose presented by the Hon. Peleg W. Chandler was adopted by a rising and unanimous vote and with the greatest enthusiasm at the meeting of the Bar Association yesterday. I was instructed as their President to send it to you. I need not say what great pleasure I have in performing this my first official duty.

"With the highest respect I am

"Very truly yours,

"JUDGE SPRAGUE.

"Signed.

"BENJ. F. THOMAS."

Judge Sprague married in Albany August 31, 1818, Sarah, daughter of Moses and

Sarah Deming, who was born February 17, 1794, and died April 24, 1881. Their children were Charles Franklin, born in Hallowell May 25, 1819, died May 30, 1840; Seth Edward, born in Hallowell April 12, 1821; Sarah, born in Hallowell April 7, 1828, who married George Phineas Upham, of Boston; and Francis Peleg, born in Washington, D. C., February 17, 1834. Seth Edward graduated at Harvard in 1841, and was admitted to the Suffolk bar September 3, 1844. He married September 11, 1848, Harriet Boardman, daughter of William and Susan Ruggles (Boardman) Lawrence, of Boston, and died in Boston June 22, 1869. Francis Peleg graduated at the Harvard Medical School in 1857, and married Elizabeth R. Lowell October 5, 1868. He is now living at 229 Commonwealth avenue, Boston.



WILLIAM GASTON.

IN the early part of the seventeenth century Jean Gaston, a French Huguenot, having been banished from France, settled in Scotland, where he finally died. About the year 1665 his sons removed to the north of Ireland, and John Gaston, a grandson of one of these sons, came to America about 1730 and settled in Voluntown, Conn. Dr. Alexander Gaston, of North Carolina, a zealous patriot during the Revolution, who was killed by the Loyalists August 20, 1781, and his son, William Gaston, of Newbern, N. C., a member of Congress and judge of the North Carolina Supreme Court, were members of another branch of the same family.

William Gaston, the subject of this sketch, and a descendant of John Gaston above mentioned, was the son of Alexander and Kezia (Arnold) Gaston, and was born in Killingly, Conn., October 3, 1820. His father was a well-known merchant in Connecticut, a man of sterling integrity and great force of character; he held many local offices and was a member of the Connecticut legislature for many years. William Gaston attended the academies of Brooklyn and Plainfield, Conn., and graduated with honors at Brown University in 1840, receiving in 1875 a degree of LL.D. from his *alma mater*, and also from Harvard. While in college, his father, being possessed of a competency, retired from business and moved to Roxbury, Mass., thus sacrificing all the associations of his life to what he deemed the interests of his son. The family had been prominent in Voluntown and Sterling, Conn., for many years, and the original farm which it occupied in Sterling, remained in the possession of Alexander Gaston for many years after he removed to Massachusetts. Governor Gaston studied law in Roxbury in the office of Judge Francis Hilliard, and afterwards in Boston in the office of Charles Pelham Curtis and Benjamin Robbins Curtis, and was admitted to the Suffolk bar December 16, 1844. He was fortunate in his instructors. Mr. Hilliard was both lawyer and scholar, a graduate at Harvard in 1823 and afterwards judge of the Roxbury Police Court, judge of insolvency for Norfolk county, and the author of several valuable law books, among which may be mentioned "Digest of Pickering's Reports," "Sales of Personal Property," "American Law of Real Property," "American Jurisprudence," "Law of Vendors and Purchasers," "Treatise on Torts," "Remedy for Torts," "New Trials," "Law of Injunctions," and "Hilliard on Mortgages."

Charles Pelham Curtis and Benjamin Robbins Curtis were both graduates of Harvard, the former a student at law in the office of William Sullivan, and the latter in the offices of John Nevers, of Northfield, Mass., and of Wells & Alvord, of Greenfield, Mass. The latter became a judge of the United States Supreme Court and one of the counsel for Andrew Johnson in his impeachment trial. He also received the



Wm. Gaston.

appointment as one of the counsel for the United States before the board of arbitration at Geneva, which he declined. Under the guidance of these men Mr. Gaston crossed the threshold of the profession, and with the legal standards set up by them ever before him, he advanced without let or hindrance to the front ranks of the bar.

He established both his office and home in Roxbury, and with uninterrupted success as a lawyer and a deserved reputation for purity of character as a man, he became a person whom his fellow-citizens were always glad to honor.

He was chosen representative to the General Court from Roxbury as a Whig in 1853 and 1854, and in 1856 by a fusion of the Whigs and Democrats in opposition to the Know-Nothings. He was mayor of that city in 1861 and 1862, and city solicitor five years. In 1865, while still retaining his residence in Roxbury, he associated himself in Boston with Harvey Jewell and Walbridge A. Field under the firm-name of Jewell, Gaston & Field, and continued his business in Boston until his death. In 1867 Roxbury was annexed to Boston, and in 1871 and 1872 he was mayor of the latter city. In 1868 he was chosen, as a Democrat, a member of the State Senate from Boston. In November, 1874, he was chosen governor of Massachusetts, the first chosen by the Democratic party since Marcus Morton, who served in 1840 and in 1843.

When chosen governor, Mr. Gaston dissolved his connection with the law firm of which he had been a member, and relinquishing practice, gave his undivided attention to the duties of his office. After leaving the gubernatorial chair he resumed practice, continuing alone until 1879, when he took as a partner Charles L. B. Whitney, who remained with him until the health of Mr. Whitney forbade further legal work.

In 1883 his son William Alexander Gaston, who graduated at Harvard in 1880, and had recently been admitted to the bar, became associated with his father, and so continued until the latter's death.

Mr. Gaston, though chosen mayor of Boston and governor of Massachusetts as a Democrat, was not an extreme partisan in the administration of his official duties, and the operations of his mind were necessarily so logical and fair, that in both those offices his career won the approval of political friends and foes. Though a confirmed Democrat after the dissolution of the Whig party, the machinery and methods of politics were distasteful to him, and only the paucity of leaders in the Democratic ranks induced him at any time to perform party duty either in office or on the stump.

The law was his real master, and the courts the arena, in which he fought with untiring enthusiasm and zeal. Though almost constantly engaged before either the bench or the jury, and pleading with an earnestness manifesting his fidelity to his client, and a thoroughness which left nothing material unsaid, in doing his duty to his cause, he always retained the friendship and esteem of his antagonist.

Few lawyers at the Suffolk bar have ended their professional career occupying a higher place in the respect of the community or enjoying stronger friendships among their fellows.

Previous to the annexation of Roxbury to Boston in 1867 he was chairman of a committee of three appointed by the city of Roxbury to confer with a like committee appointed by the city of Boston, and to report on the advisability of the annexation. He was one of the founders of the Boston Bar Association in 1876, one of its first vice-presidents, and afterwards for two years its president. He was also a member of the American Bar Association, and in 1889 was chosen one of its vice-presidents representing Massachusetts.

Governor Gaston married May 27, 1852, Louisa Augusta, daughter of Laban S. Beecher, and died in Boston, January 19, 1894.

THOMAS TALBOT.

MASSACHUSETTS has had no governor more highly esteemed for nobleness of character and purity of life than Thomas Talbot. When such men are placed in high official stations we feel reassured of the permanence of our institutions. We not only have the benefit of their influence on our national life, but their selection suggests the determination of the people to maintain our government in accordance with the highest standard.

The family to which the subject of this sketch belonged is traced back to John Talbot, the first Earl of Shrewsbury, who lost his life at the battle of Chatillon in 1458. John Talbot owned estates in Ireland, on which his descendants, in the line of Governor Talbot, lived until their emigration to America. On one of these estates in the Parish of Templemore William Talbot, the grandfather of Thomas Talbot, lived in the latter part of the last and the beginning of the present century. In 1807 William Talbot, leaving his ancestral home, came to the United States accompanied by his sons and daughters and their children, and settled in Cambridge, N. Y. From that place the various members of the family, with the exception of himself and his son Charles, scattered to different localities in New York and Canada. Soon after his arrival in Cambridge he became engaged, with his son Charles, in the manufacture of broadcloth, and died in that town in 1817.

Charles Talbot, son of William, was born in Templemore, Ireland, and married there, December 28, 1802, Phebe, daughter of Joseph White. His children were: John Walpole, born in Templemore April 25, 1805, who settled in Michigan; Charles Potts, born in Templemore May 19, 1807, of whom a sketch may be found in another part of this work; Edward Haskett, born in Cambridge, N. Y., August 7, 1810; Elizabeth Lucinda, born in Cambridge August 5, 1812; Joseph White, born in Cambridge August 24, 1814; Richard Ela, born in Cambridge June 17, 1816; Thomas, born September 7, 1818; Elias William, born in Danby, Vt., July 27, 1820; and Eleanor, born in Danby July 23, 1822.

Charles Talbot, as has been stated, came to America with his father in 1807, and established himself with him in the manufacture of broadcloth in Cambridge, N. Y. His father died in 1817, and he removed in 1819 to Danby, Vt., and continued in the same business there until his death, March 13, 1823. In 1825 Mrs. Talbot, who had been left by her husband with small means for the support of herself and eight children, removed to Northampton, Mass., with the hope of finding employment for her older sons in the woollen mills of that town. Her death occurred in Michigan, February 13, 1841.

Thomas Talbot, the subject of this sketch, and the son of Charles and Phebe (White) Talbot, was born, as has been stated, in Cambridge, N. Y., September 7, 1818. His father having died in 1823, he removed, in 1825, at the age of seven years, with his mother and her other children to Northampton, Mass. Until he was twelve years of age he attended the district schools, and then found employment in the woollen mills of John Shepard in that town. In 1835, at the age of seventeen, he entered the woollen mill of his brother, Charles Potts Talbot, in Williamsburg, Mass., where he was employed in various capacities, and finally as a broadcloth finisher and overseer. Having saved sufficient money to enable him to secure a better education, he attended



Thomas Savoy.

two terms at the academy in Cummington, Mass., and in 1839, after being employed for a time in the Pontoosuc Mill in Pittsfield, Mass., removed to Billerica, Mass. He established himself in that part of the town known as North Billerica, forming a partnership with his brother, Charles P. Talbot, whose business at Williamsburg had been broken up by the financial troubles of 1837, under the firm-name of C. P. Talbot & Co., which firm continued until the death of Charles, July 6, 1884. The firm leased an old grist-mill of the Middlesex Canal Company, on the banks of Concord river, and began the business of grinding dye-woods. In 1849 the manufacture of chemicals was added to the business, and the products of the mill were sulphuric, muriatic and nitric acids, oil of vitriol, extract of indigo, blue vitriol, solutions of tin, zinc and antimony, tin crystals and dye-woods. This mill had a most successful career, and was finally sold, in 1881, to the Talbot Dye-wood and Chemical Company.

In 1851 the firm of C. P. Talbot & Co., having acquired a considerable capital, bought of the Middlesex Canal Company the water-power in North Billerica, which the Talbot Mills have since used, and in 1857 built a mill for the manufacture of woollen flannels. In 1884 the Talbot Mills were organized as a joint-stock corporation, with Thomas Talbot as president, and Frederick S. Clark, his son-in-law, as treasurer. After the death of Mr. Talbot, Solomon Lincoln, of Boston, who married a sister of Mr. Talbot's second wife, succeeded him as president. The Talbot Mills have been enlarged and improved from time to time, and now operate twenty sets in the manufacture of flannels, dress goods and chevots, and employ three hundred and twenty-five hands.

The services of such a man as Thomas Talbot, conservative, sagacious and energetic as he was, were soon called for in behalf of his town and fellow-citizens. He was a representative in 1852, and a member of the convention of 1853 to revise the Constitution. From 1864 to 1869, during a part of the administration of Governor Andrew and the whole of that of Governor Bullock, he was a member of the executive council, and his eminent services as councillor marked him for high honors. In 1873 and 1874 he served as lieutenant-governor of Massachusetts under Governor William B. Washburn, and after March 4, 1874, when Governor Washburn succeeded Mr. Sumner as United States senator, he served as acting-governor during the remainder of the year. In November, 1874, he was nominated by the Republicans for governor, but his veto, while acting-governor, of a bill to repeal the prohibitory law then in force, led to his defeat and to the election of William Gaston, the Democratic candidate. In 1878 he was again nominated and chosen, serving one year with the certainty of a re-election had he not refused to stand again as a candidate. His administration was marked by the exhibition of those business qualities which had always characterized him in the management of his own business, and he went out of office carrying with him the affection and respect of all who had the best interests of the state at heart. Aside from political offices Governor Talbot held many others, showing the confidence of the community in his wisdom and sagacity. He was a director in the Commonwealth National Bank of Boston, president of the Boston and Lowell Railroad, state director of the Boston and Albany Railroad, trustee of the Clark Institution for Deaf Mutes at Northampton, and Howe School at Billerica.

Governor Talbot married in 1848 Mary Howe, daughter of Calvin and Ann (Faulkner) Rogers, of Billerica, who died childless in 1851. He was married a second time, October 18, 1855, to Isabella W., daughter of Lieut.-governor Joel Hayden of Williamsburg, and had four children: Isabella W., the wife of Frederick S. Clarke, treasurer of the Talbot Mills; Thomas, unmarried, the superintendent of the Talbot

Mills; Grace, the wife of Victor L. Cumnock, of Lowell, and Leroy H., now a student at Harvard.

Governor Talbot died at his home in Billerica, October 6, 1885, and funeral services were held at the family residence on the 9th, and conducted by Rev. Christopher C. Hussey, the pastor of the Unitarian Society, of which he was an active member, and Rev. E. A. Horton of the Second Church in Boston. His death was a sad event in the life of the town, in which he had been long a beloved resident. The employees in his mill, the poor and suffering everywhere within the range of his knowledge had felt the warmth of his heart and the aid of his generous hand. Though an earnest Unitarian, his beneficence overflowed the boundaries of sect, and the churches in Billerica of all denominations—Catholic, Methodist and Baptist, as well as Unitarian,—had been his grateful beneficiaries.

FREDERIC T. GREENHALGE.

GOVERNOR GREENHALGE was the son of William Greenhalge, who came from Clitheroe, in Lancashire, England, and in 1854 was put in charge of the copper-rolling engraving in the Merrimac Print Works, of Lowell. He received his early American education in the public schools of Lowell, including the high school, in which, when he graduated, he received the Carney medal. In 1859 he entered Harvard College, but by the death of his father he was deprived of the means of pursuing his course, and, leaving Cambridge, obtained a position as teacher. In 1860 he entered, as a student at law, the office of Brown & Alger, of Lowell, but before completing his studies he went into the army, and was employed in the commissary department of North Carolina. After a severe attack of malarial fever, which continued several months, he returned to Lowell, and resumed his law studies. In June, 1865, he was admitted to the Middlesex bar, and began practice in Lowell. His mind and temperament were admirably adapted to his chosen profession, and he soon attained a leading position at the bar. In 1868 and 1869 he was a member of the common council of Lowell, and in 1871 was chosen a member of the school board, remaining in that office two years. It was the fortune of the writer of this sketch to be with him one of the speakers in the Old South Church, in Boston, on the 4th of July, 1876, and he was much impressed with the scholarly address of Mr. Greenhalge, and felt that he was one of the coming men in the commonwealth. In 1880 and 1881 he held the office of mayor of Lowell, and not only on political occasions, but on many of a literary or educational nature he was sought as a speaker of unusual thought and eloquence.

In 1888 he was chosen a member of Congress, and, while a new member, attracted attention not often accorded to those not thoroughly initiated in Congressional life. In 1890 the Democratic wave, which, in sweeping the country, did not spare Massachusetts, defeated him for a second term, but the Republicans of Massachusetts had other honors in store for him, and the stone which the builders rejected became the head of the corner. In 1893 he was nominated for governor, after three years' service of William E. Russell, and a Republican governor was once more installed in the chair of state. Few men have occupied that chair who more thoroughly won the affections of the people. Generous, warm, sympathetic, and, though sometimes impulsive, yet always in the right direction, he was fully trusted in the devious channels and treacherous shoals of the political sea to keep his rudder true. Though a native of a foreign land, and consequently without those associations which inspire



Fredrick W. Frankhalce

the native American, he had read the history of his adopted land with a thoroughness rarely found even among those to the manor born, and so thoroughly that its associations had become grafted on its own, and had borne fruit of the purest and noblest patriotism. Governor Greenhalge married a daughter of Hon. John Nesmith, of Lowell, and died at his home in that city March 5, 1896.

HENRY LILLIE PIERCE.

HENRY LILLIE PIERCE was descended from John Pers, or Pierce, who was born in Norfolk, England, in 1588, and came to New England with a wife, Elizabeth, and four children, in 1637. John, the ancestor, settled in Watertown, and died March 12, 1666 or 1667. Anthony Pierce, son of John, was born in England in 1609, and with a wife, Mary, came to New England before his father, and, settling in Watertown, died May 9, 1678. Joseph, son of Anthony, born probably in 1647, had a first wife, Martha, and a second, Mrs. Elizabeth (Kendall Winship) daughter of Francis Kendall, of Woburn, and widow of Ephraim Winship, of Cambridge, and died probably in 1700. John Pierce, son of Joseph, was born in Watertown, May 27, 1673, and married November 5, 1702, Elizabeth Smith. He died in 1743 or 1744. John Pierce, son of the above John, was born September 1, 1703, and married March 4, 1731, Rebecca Fenno. He died in 1774. Seth Pierce, son of the last-mentioned John, was born November 5, 1730, and married August 19, 1756, Angelette Clarke, of Stoughton. Jesse Pierce, son of Seth, was born August 25, 1761, and married May 19, 1788, Catharine Smith, and resided in Stoughton. Colonel Jesse Pierce, son of the above-named Jesse, was born in Stoughton, November 7, 1788, and married September 9, 1824, Elizabeth, daughter of Captain John Lillie, who was an Aid of Major-General Knox, in the Revolution. In 1807, while a minor, he took charge of a school, and until 1814 taught in the schools of Stoughton and South Dedham, now Norwood. Having for a short time attended the Taunton Academy, he taught schools in Milton until 1819, and in that year opened a private school at Milton Hill, which he kept for five years. Among his scholars were John M Forbes and his brother, the late Robert Bennett Forbes. In 1824, he returned to Stoughton, his native town, and becoming the owner of the farm of his late uncle, Samuel Smith, he opened a boarding school for boys. In 1829, he abandoned teaching and devoted himself to miscellaneous business and to the public service. He was a representative from Stoughton from 1832 to 1836 and in 1840, and state senator in 1844. In 1848, he removed to the Lower Mills village of Dorchester, and there died February 3, 1856.

Henry Lillie Pierce, the subject of this sketch was the oldest child of the above-named Colonel Jesse and Elizabeth S. (Lillie) Pierce, and was born in Stoughton, August 23, 1825. He was educated in the public schools of his native town and at the State Normal School in Bridgewater. In 1850, the year after his father removed from Stoughton to Dorchester Lower Mills, he entered the chocolate manufactory of Walter Baker & Company, which was established on Neponset river near his home. After a service of several years in a subordinate capacity he left Mr. Baker's establishment and spent some months in traveling through the west in search of permanent employment. Failing in finding occupation suited to his tastes and capacities he returned to Dorchester and re-entered the chocolate factory, securing a position both lucrative and responsible. So faithfully and efficiently did he perform the duties of his office, that in 1854, soon after the death of Mr. Baker, the management

of the business was placed in his hands and there remained until his death. His father, though long a Democrat, became thoroughly imbued with the principles of free soil, and as early as 1844 voted for James G. Birney, the anti-slavery candidate for president; and Henry took an active part in the primary organization of the Republican party. While a member of the Massachusetts House of Representatives in 1860 he secured the passage of an act to strike out the word "white" wherever it occurred in the militia laws of the commonwealth. This act was vetoed by Governor Banks, but a similar act was passed in 1864 and signed by Governor Andrew. In the legislature of 1861, of which Mr. Pierce was a member, he inaugurated the movement, in which he was sustained, to instruct our senators and recommend our representatives in Congress to favor such a change in the national laws as would authorize the enlistment of colored men into the United States army. In 1862 Mr. Pierce was for the third time a member of the House of Representatives, and, as chairman of the Committee on Finance, reported and carried through this branch of the legislature an act providing for the payment of the state bonds in gold and an act taxing savings banks and insurance companies. He was again a member of the House in 1866. In 1867 he visited Europe, and after the annexation of Dorchester to Boston, in 1869, he was chosen a member of the Boston Board of Aldermen. After serving on the board in 1870 and 1871 he again visited Europe, and in the autumn of 1872 was nominated as a non-partisan candidate for mayor. He was chosen in December of that year and during his service of a single term he distinguished himself by reorganizing the health and fire departments. His sterling honesty and independence commended themselves to his fellow citizens, and only his nomination for Congress from the third district to fill a vacancy occasioned by the death of William Whiting, of Roxbury, prevented his continuance in the mayoralty chair.

His election to Congress was unopposed by any Democratic candidate and was substantially unanimous. He took his seat in December, 1872, a month before the expiration of his mayoralty term, resigning his office to the sincere regret of his constituents. While in Congress, though a firm Republican, he took an active part in opposing the adoption of measures which he believed harsh and unconstitutional, intended, as he thought, merely to perpetuate republican ascendancy in the states lately in rebellion. In this opposition he was sustained by his constituents and re-elected in the autumn of 1874. The "Force Bill," so-called, and so well known met his earnest opposition, and in a speech which he delivered against it on the 27th of February, 1875, he declared that it was permeated with the spirit that gave life and vigor to the fugitive slave bill, trampling as it did upon the principles of civil liberty and the rights of human nature.

During his second term in Congress he was at the head of the Republican members of the Committee on Commerce. As a member of that committee he made an elaborate report on the relief of vessels engaged in the coasting trade from the unjust and discriminating legislation of some of the states with regard to pilotage fees, and made speeches on the limitation of the term of office of the president, on reciprocity with Canada, and in opposition to counting the electoral vote of Louisiana for either candidate in 1876. At the close of his second term he declined further service and sought a retirement, which he, with great reluctance, permitted to be broken by a nomination for mayor as a citizens' candidate in the autumn of 1877. He was triumphantly chosen, and in his inaugural address he declared that "municipal corporations were not created and do not exist for the public advantage or private benefit of their officers or of particular individuals or classes."



Henry Pierce

After serving one year he declined a re-election and after that time devoted himself to the increasing cares and responsibilities of his manufacturing business. He was not, however, permitted to live in retirement. In 1883 he was solicited to stand as the Republican candidate for governor in the campaign against the re-election of General Butler, but declined the use of his name. In the recent disturbance of old party lines, occasioned by the original nomination of Mr. Cleveland for the presidency, and by a wide spread belief that Republican policies and measures were becoming injurious to the best interests of the country, Mr. Pierce ranged himself in line with those who favored a reduction of the war tariff, a reform in the civil service, and a sound financial system, and proved himself as ever, a conscientious and efficient soldier in the army of reform. He served, for some years, as president of the New England Tariff Reform League, and was a member of a number of the leading political and social clubs in Boston and New York.

Aside from his thorough integrity and fearless independence there was no more distinguishing trait in his character than generosity, displayed in philanthropic and charitable acts. Institutions calculated to elevate and clarify the moral condition of the community, to spread knowledge among the people, to cultivate a purer taste, and to relieve distress in every form, were grateful recipients of his benefactions. He died in Boston, December 17, 1895, and his will, perhaps more remarkable than any ever before probated in Massachusetts, illustrated the character and extent of his sympathies. After providing liberally for his brother and various friends and officers, and others in his employ, he gave more than \$500,000 to various institutions in Boston and vicinity. Among these gifts were \$25,000 to the free public library in Stoughton, \$50,000 to Harvard College, \$50,000 to the Massachusetts General Hospital, \$50,000 to the Boston Museum of Fine Arts, \$50,000 to the Massachusetts Institute of Technology, \$50,000 to the Massachusetts Homœopathic Hospital, \$20,000 to the Charitable Eye and Ear Infirmary, \$20,000 to the Childrens' Hospital, \$20,000 to Perkin's School for the Blind, \$20,000 to the New England Hospital for Women and Children, \$20,000 to the Home for Aged Men, \$20,000 to the Home for Aged Women, \$20,000 to the Home for Aged Couples, \$5,000 to the Home for Aged Colored Women, \$5,000 to the Channing Home, \$20,000 to the Home for Incurables, \$5,000 to the Childrens' Aid Society, \$20,000 to the Society for the Collegiate Instruction of Women, \$20,000 to the Society for Prevention of Cruelty to Children, \$20,000 to the Boston Lying-In Hospital. Besides these gifts he made the Museum of Fine Arts, Harvard College, the Massachusetts General Hospital, the Institute of Technology, and the Massachusetts Homeopathic Hospital his residuary legatees.

ALEXANDER HAMILTON BULLOCK.

IN 1640 Richard Bullock, a native of Essex county in England, came to Massachusetts and settled in Rehoboth in the Plymouth colony. He is mentioned in the records of that town as one of those who drew lots for certain meadowlands January 22, 1668. His son, Samuel, was born in Rehoboth August 19, 1648, and is mentioned in the records as one of the proprietors in a quit claim deed of William Bradforth, of Plymouth, executed February 7, 1689, and was also one of those who advanced money to carry on the war against King Phillip. Ebenezer Bullock, son of Samuel, was born in Rehoboth, February 22, 1676, and had a son, Hugh, who was born in the same town April 1, 1706. Hugh Bullock, son of the

above Hugh, was born in Rehoboth, August 12, 1751, and removed to Worcester county. His son, Rufus, removed to Royalston.

The subject of this sketch was the son of Rufus and Sarah (Davis) Bullock, and was born in Royalston, Mass., March 2, 1816. Rufus Bullock was a teacher in early life, but later became a merchant, and in 1825 became successfully engaged in manufactures. He was five years a representative, two years a senator, a member of the Constitutional Conventions of 1820 and 1853, and a presidential elector in 1852.

Alexander Hamilton Bullock graduated at Amherst College in 1836, and in the commencement exercises of his class delivered the salutatory oration. After leaving college, he taught school in Princeton, New Jersey, three years and then entered the Harvard Law School at Cambridge. After a year's study at the school, under the instruction of Joseph Story and Simon Greenleaf, then respectively Dane and Royall professors, he entered the office of Emory Washburn, of Worcester, and was admitted to the Worcester bar in 1841. He began practice in Worcester, and had the pursuit of his profession been congenial to his tastes, he would doubtless have taken a position as a jury lawyer in the highest rank. Possessing an attractive presence, a winning face and an unusual gift of oratory, his addresses in court could not have failed to command the closest attention, and carry conviction to the minds of the twelve men on the panel. During his short career at the bar he was engaged as junior counsel with Benjamin F. Thomas, of Worcester, in a capital trial, and his preparation of the case was exhaustive and able. He was destined, however, to distinguish himself in other paths than those of the law. As the town of Worcester grew in population and business it became necessary to establish agencies for insurance to meet the demands of the time, and in one of these Mr. Bullock found early occupation, and as additional agencies fell into his hands, his profession was gradually abandoned. In 1842 he became the editor of the *National Aegis*, a weekly newspaper published in Worcester, and retained his connection with that paper several years. He was also editor of a campaign newspaper called *Old Massachusetts*, issued from the *Aegis* office before the Presidential election in 1844, and of a like paper called the *True Whig*, issued from the same office during the Presidential campaign of 1848.

The field of politics also presented to him allurements, which seemed attractive, and his fellow-citizens were not long in discerning his peculiar adaptation to public life. Soon after his admission to the bar, he was appointed a member of the staff of Governor John Davis, and thus acquired the title of colonel, which always attached to him until displaced by the later title of governor. He was a Whig in politics, and was chosen by that party a representative to the Legislature of 1845, 1847 and 1848, and a member of the Senate of 1849. In 1853 he was appointed Commissioner of Insolvency, and held that office until a Court of Insolvency was established by law in each county in 1856. In that year he was appointed Judge of Insolvency, and continued to administer the affairs of that court until the offices of Judge and Register of Probate, and those of Judge and Register of Insolvency were abolished in 1858, and the offices of Judge and Register of Probate and Insolvency were created. In 1859 he was mayor of Worcester.

From 1861 to 1865 inclusive, Colonel Bullock was again a representative. During the session of 1861 he was chairman of the Judiciary Committee and the recognized leader of the House, and the last four years speaker of the House. It is safe to say that no man ever carried to the speaker's chair more dignity and grace, or performed its duties with more ability and impartiality. The writer has had an



Alexander H. Bullock.

opportunity of observing the deportment of twenty-eight speakers, and he can recall none, except the late Robert C. Winthrop, who equalled him in those peculiar gifts which are essential in the composition of a good presiding officer. It was well understood that Colonel Bullock would succeed John A. Andrew as governor, and during the four years of his speakership he was a marked man, into whose character the eye of criticism was ever directed. But the closer the analysis of the man the more decided was the popular conviction that in him the war governor would find a worthy successor to receive his mantle. From 1866 to 1869 he was the governor of Massachusetts, and the same traits which had distinguished him as speaker he carried with him into the higher office.

After his third year in the executive chair, Governor Bullock spent a year or more in Europe, and returned to Worcester in 1870. From that time until his death he was a busy man, occupying many positions of trust and various offices whose duties were congenial to his taste. He was a trustee of Amherst College and chairman of its finance committee, and was the recipient in 1865 of a degree of LL. D. from his *Alma Mater*. Nor was Amherst alone in conferring honors upon a man who stood foremost in the ranks of the public men of the state. From Harvard also he received in 1866 the same degree. Nor were his honors confined to his own state. In 1879 President Hayes offered him the position of Minister to the Court of St. James's, which he declined, to the infinite regret of those who knew how well fitted he was for that responsible position.

Governor Bullock was at various times made a member of the Massachusetts Historical Society, the New England Historic Genealogical Society and the American Antiquarian Society. He was also a director in the Worcester National Bank, president of the Worcester County Institution for Savings, and in January, 1882, was chosen president of the State Mutual Life Assurance Company.

As an orator Governor Bullock was long distinguished, and his services were often called in requisition on occasions of historic or literary interest. Among his addresses may be mentioned a eulogy on Edward Everett, delivered in Fanueil Hall, January 18, 1865; a eulogy on President Lincoln, delivered in Worcester by invitation from the city government; an address before the Massachusetts Charitable Mechanics' Association; an address at the dedication of the Soldiers' Monument in Worcester; an address before the literary societies of Brown University; an address at Mount Holyoke Seminary in 1876; an address at the unveiling of the statue of Hamilton in New York in 1880; an address before the alumni of Amherst College in 1863; an address before the literary societies of Williams College in 1864; an address at the centennial celebration of the settlement of Royalston, August 22, 1865; an oration in Springfield, July 4, 1867; and an address before the American Antiquarian Society on the centennial anniversary of the adoption of the Constitution of Massachusetts.

Governor Bullock married, in 1844, Elvira, daughter of Colonel A. G. Hazard, of Enfield, Conn., the founder of the Hazard Gunpowder Company. Their children were: Augustus George; Isabel, who married Nelson S. Bartlett, of Boston, and died March 6, 1896, and Fanny, who married Dr. Wm. H. Workman, of Worcester.

Governor Bullock died suddenly January 17, 1882, on his way home from the office of the State Mutual Life Assurance Company, of which only ten days before he was chosen president.

GEORGE FRISBIE HOAR.

IN the early days of the Plymouth Colony John Hoar, son of Charles Hoar, sheriff of Gloucester, England, came from England and settled in Scituate, on what has been known as the "Conihassett Grant." This grant was made to Timothy Hatherly and others, and extended from Satuit Brook northerly to the Massachusetts line, and westerly "three miles up into the woods from the high water mark in the brook." Mr. Hatherly bought the whole tract of his associates, and afterwards sold it to a company of whom John Hoar was one, reserving one quarter part to himself. Mr. Hoar was probably educated to the law, and removed to Concord, Mass., about 1660.

Samuel Hoar, a descendant of John Hoar, was born in Lincoln, Mass., May 18, 1778, and graduated at Harvard in 1802. He studied law with Artemas Ward, and was admitted to the bar in September, 1805. He became eminent as a lawyer, and was a member of the twenty-fourth Congress. He married, October 13, 1812, Sarah, daughter of Roger Sherman, and had six children, two of whom were Ebenezer Rockwood, born February 21, 1816, and George Frisbie, born August 29, 1826. He died in Concord November 2, 1856.

George Frisbie Hoar, son of Samuel and Sarah (Sherman) Hoar, was born in Concord, as above stated, August 29, 1826. He graduated at Harvard in 1846, and studied law at the Harvard Law School and in the office of Benjamin F. Thomas, of Worcester, where he was admitted to the bar in 1849. After his admission he was for a time associated in business with Emory Washburn, who had two years before resigned his seat on the bench of the Court of Common Pleas, and later was in partnership with Charles Devens and J. Henry Hill.

The cast of Mr. Hoar's mind and his keen interest in public affairs, especially those connected with political reforms, led him at an early stage of his career into the paths of public life. His trend of thought was too progressive and his capacity for work was too great to be confined within the limits of the professional field, notwithstanding the high rank he early attained at the bar. In 1849, at the time of the Whig revolt against the Presidency of General Taylor, he was chairman of the free soil committee of Worcester county, and in 1851 was chosen representative to the General Court. It may be justly said that he was the leader in the coalition movement, which placed Charles Sumner in the United States Senate and George S. Boutwell in the gubernatorial chair of the commonwealth.

In 1857 he was a member of the State Senate and chairman of the judiciary committee, and in that capacity drew up an able report defining the boundaries of the executive and legislative authority. In 1868 he was chosen a member of the forty-first Congress as the successor of John D. Baldwin, and was a member of the Committee on Education and Labor. In the forty-second Congress, of which he was also a member, he was a member of the Committee on Elections. In the forty-third Congress he delivered a eulogy on Charles Sumner, and in the forty-fourth he was one of the managers of the impeachment of Secretary Belknap, and a member of the committee which prepared the bill establishing the Electoral Commission, of which he was a member. In 1876 he declined a nomination for the forty-fifth Congress, but by the legislature of 1877 he was chosen as the successor of George S. Boutwell in the United States Senate. He was re-elected in 1883 and 1889, and is now serving his fourth term, for which he was chosen in 1895. His career in the Senate has



Chas F. Hume

been a distinguished one, characterized by those traits of character and mind which were more conspicuous in the early days of the Senate than in more recent years. While that body has, perhaps, kept pace with the community at large in its abandonment of some of the vices of social life, it cannot be fairly denied that it has deteriorated in broad, able and elevated statesmanship. There are some among its members, of whom Mr. Hoar is one, who revive in the breasts of the older generation the feeling of pride which once inspired them in the presence of Webster, Clay, Crittenden, Calhoun, Davis, Everett and Seward.

It is unnecessary to narrate in this sketch the eminent service rendered by Mr. Hoar as a member of the Senate. The phonograph of history has caught it, and the historic page will record it. Important and interesting as it has been, the writer recalls no effort of his career more indicative of the honest statement, discriminating eulogy, scholarly phrase and general ability, for which he has always been distinguished, than his address at the reception by Congress of the statue of Webster, contributed by the state of New Hampshire. Notwithstanding his severe condemnation of the compromise of 1850, in which Mr. Webster took so prominent a part, Mr. Hoar, in glowing and truthful language, portrayed that love of the Constitution and the Union which was the guiding star of Mr. Webster's public life, and which had inspired every American with that patriotic spirit, which, in the war of 1861, proved the salvation of the country.

Outside of the halls of Congress he has delivered orations which have drawn to him the attention of scholars and given him a reputation as a man of literary attainments broader than that won in the senatorial arena. Among these may be mentioned his oration at Marietta, Ohio, in 1887, on the occasion of the one hundredth anniversary of the ordinance of 1787 for the government of the northwest territory, and his oration at Plymouth, Mass., in 1895, on the two hundred and seventy-fifth anniversary of the landing of the Pilgrims.

Mr. Hoar has occupied many honorable positions, in which he has achieved special distinction. He has presided over four State Republican Conventions, and in 1880 was president of the Republican National Convention in Chicago. He has been a member of the board of overseers of Harvard College, president of the American Antiquarian Society, trustee of the Worcester Polytechnic Institute, regent of the Smithsonian Institution, and was one of the incorporators of Clark University. He has received the degree of LL.D. from William and Mary College, Amherst, Yale and Harvard.

Mr. Hoar married in 1853 Mary Louisa Spurr, who died, leaving a daughter and a son, and he married again in 1862 Ruth Ann Miller.

AUGUSTUS GEORGE BULLOCK.

AUGUSTUS GEORGE BULLOCK, named after his maternal grandfather, Augustus George Hazard, of Enfield, Conn., the founder of the Hazard Gunpowder Company, is the son of Alexander Hamilton and Elvira (Hazard) Bullock, of Worcester, Mass. He was born in Enfield, Conn., June 2, 1847, and received his early education at the Highland School in Worcester, and under the instruction of private tutors. He graduated at Harvard in 1868, and, after leaving college, spent a year with his parents in Europe. On his return home, he entered a private banking establishment, and spent two years in training for a business life. In 1870 he again visited Europe. In 1874 he entered, as a student, the law office of

George Frisbie Hoar and Thomas L. Nelson, the former now a United States senator, and the latter judge of the United States Court for the district of Massachusetts. He was admitted to the Worcester county bar in 1875, and practiced law seven years in Worcester.

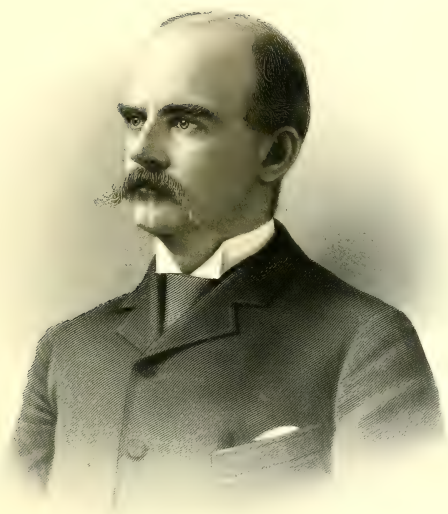
On the 7th of January, 1882, his father was chosen president of the State Mutual Life Assurance Company of Worcester, and died on the 17th of the same month, after ten days' service. Philip L. Moen, the vice-president of the company, acted as president during the remainder of the year, and in January, 1883, Mr. Bullock was chosen as his father's successor as president, and also treasurer of the company. Under his administration the company has maintained its high reputation for conservative management and honorable dealing, and the stately marble building it is now erecting is a conspicuous evidence of its success, and one of the chief architectural ornaments of the city. The company was incorporated in 1844, and issued its first policy in the following year. The office of president has been occupied since that time by John Davis, United States senator and governor; by Isaac Davis, a frequent candidate of the Democratic party for governor; by Alexander Hamilton Bullock, governor; and by his son, the subject of this sketch. It is the third oldest life insurance company in the United States, and one of the strongest. According to its report, January 1, 1896, its assets were \$11,122,983, and its liabilities \$9,847,252, and its surplus \$1,275,731.

In 1890 Mr. Bullock was appointed by President Harrison one of the United States commissioners at large for the Columbian Exposition, and he was selected by the commission as one of five of its members to interest foreign governments in the enterprise. These five visited England, France, Belgium, Holland, Germany, Austria, Russia, Norway and Sweden, and their efforts, made with shrewdness, tact and business ability, were crowned with success.

Among his fellow-citizens he has not been permitted to confine the display of his good judgment, in the management of business affairs, to the insurance company over which he presides. He is a director in the Worcester National Bank, a trustee and member of the Board of Investment of the Worcester County Savings Institution, a director in the Worcester Gas Light Company, vice president of the Worcester Consolidated Street Railroad, a director in the Providence and Worcester Railroad, and president of the Norwich and Worcester Railroad.

Mr. Bullock married, October 4, 1871, Mary, daughter of Dr. George and Josephine (Rose) Chandler, of Worcester, and has three sons—Chandler, a graduate of Harvard in the class of 1894, and now in the Harvard Law School; Alexander Hamilton, an undergraduate at Harvard, and Rockwood Hoar, a youth at school.

Mr. Bullock is a Unitarian in his church affiliations, and in politics his faith, like that of a large class of educated men in Massachusetts, is somewhat unsettled. In one respect, however, his faith is firm and sure. He believes that political parties were intended to institute and carry public measures, and not the opposite of this, that measures should be devised and supported to prolong the life of parties. He believes that measures should be sustained with a single eye to the welfare of the country, and that when they conflict with that, the parties advocating them should be abandoned and dissolved. In a single word, he is an Independent.



A. G. Bullock

STEPHEN SALISBURY.

MR. SALISBURY is descended from early Puritan stock, his first American ancestor, John Salisbury, having come to Massachusetts from England, and settled in Boston, some time in the latter half of the seventeenth century. The records of the second church in Boston contain the record of the baptism of five children of John Salisbury, the oldest of whom was born as late as 1690.

Nicholas Salisbury, son of John, was a merchant in Boston, and at his death was buried in the family tomb in the burying-ground of King's Chapel. His wife was Martha Saunders, whose ancestry can be distinctly traced as far back as the fifteenth century.

Stephen Salisbury, the eleventh and youngest child of Nicholas, was born in Boston, September 25, 1746, and established himself in business in Worcester with his brother Samuel (who still continued the business in Boston upon joint account, which he had long previously established under the firm name of Samuel & Stephen Salisbury. Worcester, at that time, was a town of only about one thousand inhabitants, but it was the centre of a considerable outlying population and a favorable point for trade. He built the colonial house still standing on the north side of Lincoln Square, and while occupying a part for a residence, carried on his business in the remainder. He bought a farm adjoining his residence on the west, bounded on the south by what is now Highland street, and found time to cultivate and improve it, notwithstanding the exacting cares of his extensive operations in trade. He married January 31, 1797, Elizabeth, daughter of Edward and Elizabeth Tuckerman, of Boston, and died May 11, 1829. His children were Stephen, Elizabeth Tuckerman, and Edward Tuckerman.

Stephen Salisbury, son of Stephen and Elizabeth (Tuckerman) Salisbury, was born in the Salisbury mansion in Lincoln Square, Worcester, March 8, 1798. He was educated at the public schools of Worcester, at Leicester Academy, and at Harvard College, where he graduated in 1817. He studied law with Samuel McGregor Burnside, of Worcester, and was admitted to the Worcester County bar. After his admission to the bar, the cares of business, which devolved on him in the declining years of his father, and the additional responsibilities thrown on him by his father's death in 1829, precluded a continued pursuit of his profession. In 1830 Mr. Salisbury visited Europe, where he passed two years in travel and study. On his return he took an active interest in the affairs of his native town. He was a director of the Worcester Bank and its successor, the Worcester National Bank, more than fifty years, and its president for nearly forty years; president of the Worcester County Savings Institution twenty-five years; president of the Board of Directors of the Worcester Free Public Library eight years; an overseer of Harvard College from 1871 to 1883, which college conferred upon him the degree of LL.D. in 1875; trustee and treasurer of the Peabody Museum fifteen years; a member of the American Antiquarian Society from 1840 until his death, vice-president in 1853 and president from 1854; president of the Polytechnic Institute; a selectman of the town of Worcester in 1839, a member of the first Board of Aldermen of the city in 1848, representative in 1838 and 1839, state senator in 1846 and 1847, and presidential elector in 1860 and 1872; a director in the Worcester and Nashua Railroad, and of the Boston, Barre and Gardner Railroad; a trustee of the State Lunatic Hospital, in Worcester, and of the Leicester Academy; president of the Worcester Horticultural

Society, and a member of the Massachusetts Historical Society. He was married three times: first, November 7, 1833, to Rebekah, daughter of Aaron and Phila (Scott) Dean, of Charlestown, who died July 24, 1843; second, June 26, 1850, to Nancy Hoard, widow of Captain George Lincoln, who died September 4, 1852; and, third, June 2, 1853, to Mary Grosvenor, widow of Edward D. Bangs. He built, in 1837, the house in Highland street, on the farm land bought by his father adjoining the old Salisbury estate on Lincoln Square, where he afterwards lived, and where he died August 24, 1884.

Stephen Salisbury, the subject of this sketch, the son of Stephen and Rebekah Scott (Dean) Salisbury, was born in Worcester, March 31, 1835. His earliest education was received in the private schools of Mrs. Levi Heywood and Mrs. Jonathan Wood in Worcester, and Miss Bradford in Boston, and afterwards in the public grammar school of Worcester under the charge, at various times, of Warren Lazell and C. B. Metcalf. He fitted for college at the Worcester High School, under the instruction of Nelson Wheeler, and graduated at Harvard in 1856. After leaving college, he spent two years and a half abroad, attending lectures in Berlin and Paris, and visiting England, Ireland, Scotland, France, Italy, Greece and Asia Minor. In 1858, he returned home, and shortly after entered the Harvard Law School, where he received the degree of LL.B. in 1860. He completed his law studies in the office of Dewey & Williams in Worcester, and was admitted to the Worcester county bar in October, 1861. Mr. Salisbury visited Yucatan, Mexico and Cuba, devoting six months in Yucatan to studying the remains of Maya civilization and acquiring information of interest and importance, which he afterwards communicated in valuable contributions to the proceedings of the American Antiquarian Society. In 1886 and 1891, he revisited Yucatan and Mexico, and in 1888, on his latest visit to Europe, traveled in Holland, Belgium, France and Spain.

Mr. Salisbury has never entered on the practice of his profession. His literary pursuits, the care of his own interests and of those intrusted to his management, and the performance of duties attached to the various offices he holds occupy his time and attention. He has inherited those traits of character, which command the full confidence of the community, and his attachment to his birth-place induces him to make a willing response to calls for his aid and counsel made by his fellow-citizens. In 1864-65-66, he was a member of the common council of Worcester, and in the last year president of the board, and was a member of the state senate in 1893-94 and 1895. He was chosen a director of the Worcester National Bank in 1865, and since the death of his father in 1884 has been its president. In 1877, he was made a trustee and member of the board of investment of the Worcester County Institution for Savings, and since the death of Alexander H. Bullock in 1882 has been its president. Since 1863, he has been a director in the State Mutual Life Assurance Company, and was a director in the Worcester and Nashua Railroad and the Boston, Barre and Gardner roads before their absorption by the Boston & Maine and Fitchburg railroad companies. In 1882, he was made president of the Worcester Horticultural Society, and in 1889 commissioner of the sinking funds of the city of Worcester. Among other offices held now, or in the past, by him, may be mentioned those of trustee of the Hope and Rural Cemeteries, trustee and secretary of the City Hospital, trustee and secretary of the Memorial Hospital, trustee and treasurer of Clark University, director of the Norwich Railroad, trustee of Leicester Academy, director and treasurer of the Music Hall Association, trustee of the Worcester Polytechnic Institute and president of the board, and chairman of the board of trustees of the Peabody Museum of Archaeology. He is also a member of the Massachusetts



Stephen Salisbury

Historical Society, the American Geographical Society and of the Sociedad Mexicana de geografia y Estadística and of the Conservatorio Yucateco. He was made a member of the American Antiquarian Society in 1863, a member of its council in 1874, a vice-president in 1884 and president in 1887. He has contributed to its transactions important papers on the inhabitants of Yucatan and their arts, and has translated for the society from the German valuable articles on the same and kindred subjects.

The public spirit of Mr. Salisbury has been shown not only by his faithful performance of public duties, but also by liberal gifts to promote the comfort and welfare of his native town. He has given to the city a park of eighteen acres, known as Institute Park, bordering on Salisbury pond; a building to the City Hospital, and another to the Polytechnic Institute. The most recent among his other gifts was a building for mechanical, physical and chemical laboratories.

Mr. Salisbury is unmarried and occupies the house built by his father on Highland street in 1837.

WILLIAM WALLACE CRAPO.

THE first American ancestor of the Crapo family was Pierre Crapaud, or as it is written in the record of his marriage, Pero Crapoo, and as finally anglicized, Peter Crapo. According to tradition this Peter Crapo when a young boy was cast ashore somewhere on Cape Cod from the wreck of a French vessel. Speaking the French language and unable to make his real name intelligible, he was given the common English nickname for a Frenchman, Crapaud.

As the Frenchman calls his insular neighbor "John Bull," so the Englishman calls his frog-eating enemy "Johnny Crapaud." Crapaud, however, means toad, and not frog. There are many ingenious and recondite explanations of the origin of this nickname, the most plausible of which is as follows: "The number of toads on the island of Jersey gave rise to the nickname Crapaud applied to Jerseymen. This by a sort of nautical ratiocination has been transferred to Frenchmen generally, and every sailor who spins his yarn never fails to designate his late enemy as Johnny Crappo without, perhaps, having any idea that the sobriquet was transferred from Jersey."

This tradition of the origin of the name Crapo as belonging to this family, like many other traditions, may be largely fictitious. Crapaud, or Crapeau, may have been the actual name of the castaway. It is not an uncommon Huguenot name. A French vessel was wrecked on Cape Cod in 1694, on board of which Dr. Francis Le Baron, the hero of the novel, "The Nameless Nobleman," was either a passenger or officer, and it is within the bounds of possibility that Pierre Crapaud was also a member of that ship's company.

It would seem probable that the boy was taken into the home of a family named Coombs. He settled in Rochester, Mass., and in March, 1703-4, as appears by the Rochester records, twenty acres of land adjoining the south end of Sniptuit pond were set off to him. On May 31, 1704, he married Penelope White. This Penelope White was born March 12, 1687, and was the seventh child of Samuel and Rebecca White. This Samuel White, of Rochester, born March 13, 1646, was a son of Resolved White, who accompanied his father, William White, on the "Mayflower" in 1620.

The fourth son of Peter and Penelope Crapo was John, who was born in Rochester, February 22, 1711. The third son of John was Peter, born in Rochester

in 1743. Peter married in 1766 Sarah West, and removed with his brother Consider to Freetown about 1770, where he died March 3, 1822.

This Peter, the second of the name, may have been the Peter Crapo who as a soldier in a company that met at Elijah Clapp's in Middleborough on the morning of May 29, 1758, marched to and participated in the battle of Ticonderoga. He was unquestionably the Peter Crapo who, with his brother Consider, was in the muster roll of Capt. Levi Rounswell's "minute company that marched on the alarm, 19th of April, 1775, from Freetown." He served in the militia from Freetown at various times during the Revolution. He was a man of strong individuality and force of character. He engaged in the sale and manufacture of lumber in Freetown and acquired considerable property. One of his daughters, who was alive in 1886, tells of a saying which the Indians used in reference to him. "Old Peter Crapo's jacket hung in the woods was worth more than all the eel-spearing in Long Pond at sunrise."

The eighth child of Peter and Sarah Crapo was Jesse, who was born in Freetown, May 22, 1787, and died in Dartmouth, January 11, 1831. He married Phebe Howland, born March 29, 1785, a daughter of Henry Howland, who was descended through David, Thomas, Henry and Zoeth from Henry Howland, of Duxbury, Mass., a brother of John Howland, one of the "Mayflower" company.

Henry Howland Crapo, the oldest son of Jesse and Phebe (Howland) Crapo, and the father of the subject of this sketch, was born in Dartmouth, May 24, 1804. Mainly by his own efforts he acquired an education beyond the means of his parents to furnish, and, on reaching manhood, became a competent teacher in the public schools of Dartmouth and Westport, including the high school in the latter town. In 1832 he removed to New Bedford, Mass., and established himself in business as a land surveyor. Soon after his settlement in his new home, he was chosen town clerk, town treasurer and collector of taxes, and held those offices until the incorporation of New Bedford as a city in 1847. Under the city government he was appointed treasurer and collector, and served two years. In 1852 he was a member of the Board of Aldermen and chairman of the Committee on Education. He was active in promoting the establishment of the New Bedford Public Library, and was a member of its first board of trustees. Like all New Bedford men with money to invest, he took an interest in vessels engaged in the whale fishery, and a bark built for that business was named "Henry H. Crapo" in his honor. He was colonel in the militia, president of the Bristol County Mutual Insurance Company, secretary of the Bedford Commercial Insurance Company, and associate justice of the police court. In 1856 he became interested in timber lands in Michigan in connection with James Arnold and Judge Oliver Prescott, of New Bedford, and removed to the town of Flint in that state, near which town the lands were situated. These lands, comprising at first about thirteen thousand acres, finally came into his sole possession, and were at a later time enlarged to about twenty thousand. In connection with these lands, saw mills were built, and the manufacture of lumber was largely carried on. For the better management of his business he was the chief promoter of the construction of the Flint and Holly Railroad, and was its president until its consolidation with the Flint and Pere Marquette Railroad. Of the former road it may be said that it was constructed without a mortgage or floating debt. The introduction of capital and a spirit of enterprise into the town of Flint soon placed Mr. Crapo in the front rank of its citizens, and before the war he was chosen mayor. In 1862 he was chosen state senator, and in 1863 was made president of the Genesee County Agricultural Society. In 1864 he was chosen governor of Michigan and,



Wm. W. Croft

after his two years' term, was re-chosen in 1866. He married, June 9, 1825, Mary Ann, daughter of William and Anna (Chase) Slocum, of Dartmouth, and died in Flint, July 23, 1869, five years before his wife.

William Wallace Crapo, the only son of Henry Howland and Mary Ann (Slocum) Crapo, was born in Dartmouth, Mass., May 16, 1830. When two years of age his father removed to New Bedford, and in the public schools and at Friend's Academy in that town he received his early education. He fitted for college at Phillips Andover Academy and graduated at Yale College in 1852. He studied law in the office of John H. Clifford, of New Bedford, and at the Harvard law school, and was admitted to the Bristol County bar in February, 1855. Beginning practice alone in New Bedford, it was not long before he had so far established himself in business as to induce Lincoln Flagg Brigham, who was about to form a partnership with Joshua C. Stone, in New Bedford, to offer him a place in the firm. The question for Mr. Crapo to decide was a critical one. He had confidence in his own powers, and in his ultimate success as the result of a reliance on his own unaided efforts. On the other hand, both Mr. Brigham and Mr. Stone were eminent in the profession, commanded a lucrative practice, and could without doubt, so far as the immediate future was concerned, give him a more prominent position than he was occupying. To aid him in his decision he appealed to Mr. Brigham himself for advice. Mr. Brigham replied that the membership of Mr. Crapo in the firm was asked for the benefit of the firm, and with that honesty which always characterized him he added, "I advise you to remain where you are."

Mr. Crapo continued alone, winning the confidence of the community, enlarging his business and finally occupying a position in the law, which as a younger member of a firm like that of Brigham & Stone he would have found it difficult so soon to reach. The advice of Mr. Brigham was fully justified. When Mr. Brigham was appointed judge of the Superior Court in 1859, Mr. Stone was induced by business friends to remove to Boston, and the firm of Brigham & Stone disappeared. In 1861 the practice of Mr. Crapo had so largely increased that its careful and efficient management rendered the aid of a partner imperative. At his invitation Mr. Stone returned to New Bedford, and a partnership was formed in 1862 which continued until the death of Mr. Stone in 1869. In 1869 George Marston, of Barnstable, who had been judge of probate for Barnstable County, and was then district attorney and eminent at the bar, removed to New Bedford, and the firm of Marston & Crapo was formed, consisting of Mr. Marston and Mr. Crapo, with Wendell H. Cobb and Charles W. Clifford as junior partners. In 1878 this firm was dissolved and a new firm, Crapo, Clifford & Clifford was formed by Mr. Crapo and Mr. Clifford and Walter Clifford, a younger brother of Mr. Clifford. In 1886 Henry Howland Crapo, Mr. Crapo's son, became a partner, and the firm of Crapo, Clifford & Clifford, to which Oliver Prescott was admitted in 1894, occupies a position in the front rank of the law firms of southeastern Massachusetts. The admiralty practice, which made up a large portion of Mr. Crapo's business in the early years of his career, has necessarily declined with the gradually decaying business of the whale fishery, and the practice of the firm is now a general one, largely confined, however, to the civil side of the courts. No man stands higher in the esteem and confidence of his fellow-citizens than the head of the firm, and in his hands either as attorney, trustee or executor their interests are placed without a shadow of doubt as to their honorable administration.

In 1855, the year of his admission to the bar, Mr. Crapo was chosen city solicitor and continued in office twelve years. In 1856 the allurements of politics drew him as a speaker into the campaign for the election of Fremont to the Presidency. In

the same year he was chosen representative and, after one year's service, declined a renomination. So far as the administration of municipal affairs was concerned, he was especially active in the measure to introduce water into New Bedford, and was chairman of the water board from 1865 to 1875. Before the assembling of the first session of the forty-fourth Congress a vacancy occurred in the representation of the First Massachusetts district, occasioned by the death of James Buffington, and Mr. Crapo was chosen to fill it. He was chosen also a member of the forty-fifth, forty-sixth and forty-seventh Congresses, but declined a nomination for the forty-eighth. While in Congress he was a member of the Committee on Banks and Banking, and was especially influential in legislation concerning the renewals of charters of national banks. In 1882, the last year of his service, he received from his *alma mater* the honorary degree of Doctor of Laws. His congressional service confirmed and extended his reputation, and in 1889 he was a prominent candidate in the Republican State Convention for nomination as governor. His failure to receive the nomination was due to that dignity of character to which the ordinary methods of politicians are repugnant, though unfortunately in these later times, essential to success. Mr. Crapo has been connected officially with many financial and business corporations. He was a director in the New Bedford and Taunton Railroad prior to its consolidation with the Old Colony, and is at the present time president of the Flint and Pere Marquette Railroad in Michigan, president of the Eel River Railroad in Indiana, now leased to the Wabash road, vice-president of the International Trust Company of Boston, president of the Mechanics' National Bank of New Bedford, president of the New Bedford Institution for Savings, with a deposit of thirteen millions, president of the Wamsutta Mills of New Bedford, and director in the Potomska, the Acushnet and the Hathaway Cotton Mills, also of New Bedford, in all four there being no less than six hundred thousand spindles.

The management of the timber lands and of the manufacture of lumber in Michigan devolved on Mr. Crapo under the will of his father, and was conducted with a continuance of the ability and skill which characterized it in his father's hands. His large business interests in Michigan have, in almost everything but residence, identified him with the people of that state, and he has been many years president of the Flint and Pere Marquette Railroad.

This road, with its various branches, is over six hundred miles in length, and has performed a large share in the development of Michigan. Its eastern termini are at Detroit, Toledo and Port Huron, with western terminals on Lake Michigan, at Ludington and Manistee. It connects, by means of a fleet of fine steamers, which it owns, with Milwaukee and Manitowoc, thereby forming an important link in the transportation from the northwest to the seaboard.

Mr. Crapo married, January 22, 1857, Sarah Ann Davis, daughter of George and Serena Davis Tappan, and has two sons, Henry Howland, born January 31, 1862, a graduate at Harvard in 1883, and now a partner in the law firm of Crapo, Clifford & Clifford; and Stanford Tappan, born June 13, 1865, a graduate of Yale in 1886, and now general manager of the Flint and Pere Marquette Railroad.



A. W. Patten

ORLANDO B. POTTER.

MR. POTTER was descended from John Potter, who settled in New Haven, Conn., in 1639, and was one of the signers of the New England covenant. Samuel Potter, the father of Orlando, was born in Hamden, Conn., and married in Charlemont, Mass., Sophia, daughter of Samuel Rice, and a descendant in the seventh generation from Edmund Rice, who came from Barkhamstead, England, and settled in Sudbury, Mass., in 1638. In 1819 Samuel Potter removed to Charlemont, where he settled on a hill-side farm, and reared a family of ten children. Here he experienced the labors and hardships of the early pioneers, and here, like them, by indomitable energy he overcame the obstacles in his way, and established himself on a well-tilled and profitable homestead.

Orlando B. Potter, son of Samuel and Sophia (Rice) Potter, was born in Charlemont, March 10, 1823. He attended the district school in his native town, and, with his older brother, spent his leisure hours in attending to the affairs of the farm, during the frequent absences of his father, who was obliged to carry his produce over country roads to Boston, a hundred miles away. After his brother left home for school and college, the care of the farm was on such occasions left chiefly in his hands. At the age of sixteen, with the view of preparing himself for a college career, while working on the farm in the spring and summer, he taught school in the winter, and thus earned something for his support during his college life.

In 1841 he entered Williams College, but, in his sophomore year, left college on account of ill health, and, after a trip to sea, secured a position as teacher in the town of Dennis on Cape Cod, where he remained engaged in various occupations, aside from that of a teacher, until September, 1845. In the summer of that year, he taught a class of young ladies in Dennis, and hired a piece of ground, to the cultivation of which he devoted the early hours of the day. In the autumn, after marketing his products, a part of which, consisting of fifty bushels of potatoes, he shipped to Provincetown, and peddled from house to house, he entered the Harvard Law School. Completing his law studies in the office of Charles Grandison Thomas, of Boston, he was admitted to the Suffolk bar on the 12th of February, 1848. While pursuing his law studies, he taught school two terms of three months each in Dennis and Charlemont, and was permitted by Mr. Thomas, his instructor, to try cases in the Justices' Court. He lived in a small room in Sewall place, where he boarded himself, and when he began practice he was able to say that he owed no man a farthing. Opening an office in Boston, he opened another in South Reading, where he took up his residence, and devoted his evenings to business. The ability and skill displayed by him in the collection of a debt, for a prominent business man in Boston, was the means of securing to him a business which, in his first year, yielded an income of \$3,000. He continued his practice in Boston and South Reading until May 18, 1853, during which time he not only supported his own immediate family, but also aided his two sisters and younger brother in obtaining an education, and laid up \$10,000.

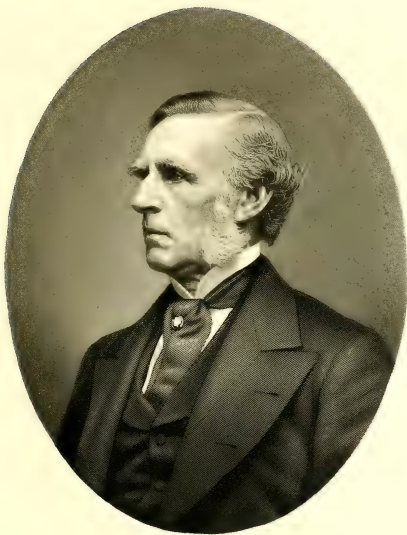
In 1852, through his connection with a suit against two young men for the contract price of a sewing-machine which they had invented, he was induced to become associated with them in its development and manufacture. In 1853 the demands of the enterprise caused him to remove to New York, where soon after a stock company was incorporated for the manufacture of the machines, and Mr. Potter was made president. Until 1876 he was constantly engaged in the management of the affairs of the company, directing its large commercial business and its legal conflicts against

infringements of its patents. Its cases in court were numbered by hundreds, and in not one was permanent defeat suffered.

In 1876 Mr. Potter retired from active business, so far as his sewing-machine enterprise was concerned, and devoted himself exclusively to the management of the wealth which he had secured. Having faith in the future of New York, he was led to invest largely in real estate. In 1886 he completed the "Potter Building" in Park Row, and in 1889 the large building adjacent to Grace Church in Broadway. In 1892 he completed the structure at the corner of Astor place and Lafayette place, covering a frontage of four hundred feet. In 1869 he bought a farm on the Hudson near Sing Sing, which contained at the time of his death, with additions made subsequent to its purchase, about seven hundred acres, and there among his herds and flocks he was accustomed to spend his summers for many years.

Previous to 1860, Mr. Potter was a member of the Whig party, and in that year voted for President Lincoln, but the policy of centralization and the advocacy of paternal measures of government, which characterized the Republican party, compelled him to seek fellowship in the ranks of the Democracy. In 1878 he was the Democratic candidate for congress in the Tenth Congressional district of New York, but was defeated. In 1881, upon the resignation of Levi P. Morton, he was offered the Democratic nomination for congress in the Eleventh district, but declined. In 1882 he accepted a nomination in the Eleventh district, and was chosen. In 1884 he declined a nomination for a second term, and in 1886 declined to stand as independent candidate for mayor. Public office failed to allure him, and he attached little value to so-called public honors. His single term in congress more than filled the measure of his ambition, and no temptations were sufficient to induce him to accept the nomination for a second. Aside from his own absorbing business, the affairs of the New York Agricultural Society were in harmony with his tastes, and he served that association as president from 1891 to 1893. In 1889 Williams College conferred on him the honorary degree of Doctor of Laws.

This sketch would be incomplete without a reference to Mr. Potter as the originator of the national banking system. The honor of the paternity of this system has been claimed for others, but a fair examination of the record will accord it to Mr. Potter beyond the possibility of dispute. On the 14th of August, 1861, he addressed a letter to Salmon P. Chase, secretary of the treasury, proposing as follows: "to allow banks and bankers, duly authorized in the loyal states, to secure their bills by depositing with a superintendent appointed by the government, United States stocks at their par value, . . . thus making the stocks of the United States a basis of banking, on which alone a national circulation can be secured . . . and that in case the same shall fail to be redeemed by the bank or banker issuing the currency, then on due demand and protest such superintendent shall sell . . . and apply to the redemption of said currency the stocks held to secure the same. . . . This money might properly be designated United States currency. . . . The objects which will be secured by this plan are: First, the bills thus secured will have, in whatever state issued, a national circulation, and be worth the same in all parts of the country. . . . Second, the fact that in this way banks and bankers could obtain a national circulation for their bills, would make United States stocks eagerly sought after by them, and their price would always be maintained at or above par, though they bore only a low rate of interest. Four per cents. could never fall below par after the system is fairly understood and at work. The adoption of this plan could not fail to put an end to all financial troubles during the war, and be an increasing benefit and blessing ever after. While it would supply all the means required for



Horatio Gates Knight

the war, it could instantly enable the older and newer portions of the country to increase their trade with each other, by supplying to such newer portions an abundant and perfectly safe currency."

Mr. Potter married first, in October, 1850, Martha G., daughter of Benjamin B. Wiley, of South Reading, Mass., who died in February, 1879; and second, Mary Kate, daughter of Jared Linsly, of New York. He died January 2, 1894.

HORATIO GATES KNIGHT.

SAMUEL KNIGHT, the grandfather of the subject of this sketch, was born in Norwich, Conn., and removed to Murrayfield, Mass., in 1769. That town was incorporated October 31, 1765, and comprised what are now the towns of Chester and Huntington. That part of the town which is now Huntington was incorporated June 29, 1773, as the town of Norwich, in deference to the wishes of those among its inhabitants who had come from Norwich, Conn., among whom was Samuel Knight as above mentioned. Mr. Knight was a town officer in Murrayfield in 1772, and selectman of Norwich in 1774-5, 1780-83-4-5-6-7, 1790-1-2-6, 1801-13-14-15, 1816-25-26-27. A district in the town of Huntington has long been known as Knightville, and goes far to show that the family of Knights was one of high standing. Samuel Knight and Betsey, his wife, had ten sons and three daughters, as follows: Rodolphus, born in Connecticut December 4, 1768; Samuel, born in Norwich February 11, 1771; Sylvester, born February 27, 1773; Betsey, born April 11, 1775; Clarissa, born March 21, 1777; Artemus, born March 2, 1779; Lucinda, born December 28, 1780; Erastus and Quartus, twins, born March 1, 1783; Roswell, born May 10, 1785; Horatio Gates, born June 21, 1787; Horace, born April 21, 1789; Milton, born February 21, 1791. Sylvester Knight, one of these sons, removed to Easthampton in the early part of the present century, and is recorded as having been a member of the board of selectmen of Norwich in 1809, probably not long before his removal. He married a first wife before he left Norwich, and after he became a resident of Easthampton he married for a second wife, Rachel, daughter of Captain David Lyman, of that town. Horatio Gates Knight, son of Sylvester and Rachel (Lyman) Knight, was born in Easthampton March 24, 1818. His grandfather, Samuel Knight, was attached to the staff of General Horatio Gates at the battle of Saratoga, and the subject of this sketch was named in honor of the general. Mr. Knight was educated in the public schools of Easthampton and under private instruction. At the age of sixteen he entered the employment of Samuel Williston, of Easthampton, who was then engaged in the manufacture of sewed and silk-twist buttons. In 1836 Mr. Williston, while in New York on business, saw an English button called the Florentine flexible shank button, and with machinery invented under the direction of Joel and Josiah Hayden, of Williamsburg, and improved by a creole named Francis Sydney, who had been employed in an English mill, he joined the Messrs. Hayden in the manufacture of the new button at Williamsburg. In 1847 Mr. Williston bought the interest of the Messrs. Hayden in the enterprise, and in the following year transferred the business to Easthampton. Not far from that time he took as partners Mr. Knight and Seth Warner, and formed the firm of Williston, Knight & Co., which continued until December 1, 1865, when the National Button Company was formed, with Mr. Williston as president and Mr. Knight as treasurer. Mr. Williston died July 18, 1874, and Mr. Knight has served since that time both as president and treasurer. In 1892 the manufacture of ivory buttons was added to the business of the company, and a separate mill erected for

the purpose. The operations of the company were temporarily embarrassed some years since by unexpected and severe losses, but by the untiring exertions of Mr. Knight it was safely extricated from a fatal disaster, and was re-established on a sure and profitable basis. Aside from the business with which he has been connected as manager, he has been largely interested in the Nashawannuck Company, the Rubber Thread Company, and Glendale Manufactories in Easthampton, of which he has been a director. He has been president of the Easthampton National Bank, and is at the present time president of the Northampton Institution for Savings and director of the First National Bank of that city. He has been many years trustee of Williston Seminary and of Williams College, and corporator, trustee and vice-president of the Clark Institution for Deaf Mutes in Northampton.

Nor has Mr. Knight been permitted to confine his attention and care to his private affairs and the business enterprises in which he has had more or less pecuniary interest. His knowledge of affairs and his executive ability were early recognized by his townsmen and, through his intercourse with public men, by those beyond the borders of his own town and county. He served on the Board of Selectmen of Easthampton in 1851 and 1852, and on the school committee from 1861 to 1866 inclusive. He was a representative in 1852 and 1853 and in the Massachusetts Senate in 1858 and 1859. During both of these years the writer of this sketch sat with him at the Senate board, and now bears willing testimony to his legislative ability and his unerring judgment. In 1858 he served on the Committee on the Treasury, was chairman of the Committee on Manufactures, and a member of the joint-special committee on the financial affairs of the Commonwealth. In 1859 he was again chairman of the Committee on Manufactures and a member of the Committee on Banks and Banking. He was a delegate to the National Republican Conventions in Chicago in 1860 and in Philadelphia in 1872, and in 1868 and 1869 was a member of the Executive Council during the administration of Governor Alexander H. Bullock and Governor William Claflin. In 1874 he was chosen lieutenant-governor, and served four years during the entire administrations of Governor William Gaston and Governor Alexander H. Rice. In 1862 he was appointed by Governor John A. Andrew a commissioner to superintend drafting, and in 1873 was appointed by Governor William B. Washburn commissioner for Massachusetts to attend the Vienna Exposition. In 1879 he was appointed by Governor Thomas Talbot a member of the Board of Education, and his membership is remembered as a useful one to the state. Whatever deficiencies existed in his education when he left school were soon supplied as he went out into the world; and few men, aside from those who are actual students of the times, rank him for general intelligence and that shrewd use of knowledge which leads to success. This is largely due to his extensive foreign travel for business and pleasure and to his association with educated and progressive men of his time. Few men have led a more active and useful life than Mr. Knight; and now, at the age of seventy-seven, with a step as alert as that of youth, with mental powers unimpaired, and a capacity for business not yet invaded by senile attacks, it is hoped that he has many years of usefulness before him. He married September 28, 1843, Mary Ann, daughter of Charles Huntoon, of New York city, and has two sons and two daughters living—Horatio Williston and Charles Huntoon, both living in New York, the latter a physician and a graduate of Williams college; Mary, married and living in New York, and Lucy. His eldest daughter, Alice, was the first wife of Rev. Henry Hopkins, of Kansas City.

NOTE.—When the above sketch was written, Governor Knight was living and in good health. He died at his home in Easthampton, October 16, 1895.



Paul B. Ring

SAMUEL BAKER RINDGE.

MR. RINDGE was descended from Daniel Rindge, who came from England in 1638, and, after a short residence in Roxbury, Mass., removed to Ipswich, where his name first appears in the records in 1648. The farm occupied by Daniel Rindge was in that part of Ipswich, which was incorporated as the town of Hamilton in 1793. Four generations of the descendants of Daniel in the line of the subject of this sketch were natives of Ipswich, the last of whom, Samuel Rindge, was born January 29th, 1791, and removed to Salem. Samuel Rindge, at a later time, removed from Salem to East Cambridge, where he was employed many years as overseer and purchaser of supplies by the New England Glass Company. He married, February 17th, 1820, Maria Bradlee Wait, and died February 1st, 1850.

Samuel Baker Rindge, son of Samuel and Maria Bradlee (Wait) Rindge, was born December 26th 1820, and was educated in the public schools. In 1836, at the age of sixteen, he entered as clerk the commission house of Parker & Blanchard, of Boston, engaged in the sale of textile fabrics on manufacturers' account. The business methods of merchants in those days were very different from those which were introduced after the construction of railroads. Country traders, who always bought their own goods without the intervention of commercial travelers, would reach Boston by stage late in the day, and early the next morning make their purchases of the wholesale dealers as early as seven or eight o'clock. At those hours, the clerks must be on hand, and it was a part of their duty to make in the evening the circuit of the hotels, the Exchange Coffee House in State street, the Commercial Coffee House and Pearl Street House in Milk street the Washington Coffee House and the Lamb Tavern in Washington street, the City Hotel in Brattle street, and the Tremont House in Tremont street, and searching for buyers, make appointments for the next morning.

First as a boy, and later as a salesman, Mr. Rindge thus acquired those habits of punctuality and industry which characterized him through life. Having obtained a thorough knowledge of manufactured goods and the wants of the trade, he became so useful to his employers that in 1847, at the age of twenty-seven, he was admitted a member of the firm. The name of the firm at that time was Parker, Wilder & Parker, and the late Marshall P. Wilder was one of its members. At a later date the firm name became Parker, Wilder & Company, and Mr. Rindge, at the time of his death in 1883, was its senior member. No commission house in Boston had a higher reputation than Parker, Wilder & Company, and much of its stability and prosperity was due to the courage, foresight and indomitable energy of Mr. Rindge.

It cannot be supposed that a man, endowed with the ability of Mr. Rindge, would fail to be drafted into the service of his fellow-citizens. For many years he was a director in the Charles River National Bank, and later its president. He was also a director in the Lechmere National Bank in East Cambridge, president of the Union Glass Company, a director in the Cambridge Railroad Company, trustee in the Cambridge Savings Bank, and a director in several of the manufacturing companies, of whose goods his firm were the selling agents.

While a resident of Cambridge, he passed the summer seasons of the last few years of his life in Marblehead, where he built a commodious and elegant house at Little Top Hill, near Peach's Point, and found needed relief from the cares and responsibilities of business.

Mr. Rindge married April 29, 1845, Clarissa Harrington, of Lexington, Mass., and died May 3, 1883. In Cambridge, where he had spent the best years of his life and become identified with its welfare and interests, and in Marblehead, where in daily intercourse with its people he had won their affection and esteem, his death was felt by every one as both a public and personal loss. It was said of him by one who knew and loved him "that he was a friend to the needy and down-trodden. No one who ever asked alms for himself or others, or a favor of any kind from him was ever refused. He never published his charity to the world, but quietly and without display gave generously of his ample wealth." Of six children only one, Frederick Hastings Rindge, survived him, and to him the public spirit and generosity of his father have descended as an inheritance. To him the city of Cambridge is indebted for its Public Library building and the land on which it stands. In 1887 he gave a tract of land containing one hundred and fifteen thousand square feet, bounded by Cambridge, Trowbridge, Broadway and Irving Streets, and under the direction of a committee named by him, consisting of Justin Winsor, T. W. Higginson, Samuel L. Montague and William E. Russell, the building was erected and completed in 1889. Mr. F. H. Rindge also built for the city its city hall on land purchased by the city.

JOHN OLMSTED.

A CITY like Springfield, Massachusetts, which, from a town of seven or eight thousand inhabitants, has advanced in a generation to a municipality, containing a population of fifty thousand, must necessarily contain many active and progressive men, who were not to the manor born. To these the growth and prosperity of the city are chiefly due, not merely because its more recent citizens largely outnumber the old, but also because those, who have transplanted themselves into fields of activity broader than those in which they were reared, were men of irrepressible ambition, and possessed sufficient sagacity and foresight to see those conditions of success, which a town, as favorably situated as Springfield, could not fail to furnish.

Among these is John Olmsted the subject of this sketch. Carrying in his veins good old Puritan blood, he has inherited those qualities, which are as essential to-day to a successful contest with the thousand obstacles which beset business men, as in the days of his ancestors, to encounter and overcome the hardships and dangers of pioneer life. His earliest American ancestor was James Olmsted, who came from London in the ship "Lyon," and landed at Boston September 16, 1632. He settled first in Cambridge and is mentioned in the records of that town as having been chosen constable. In 1636 he became one of the original proprietors of Hartford, Conn., where he soon became an extensive landowner and died September 18, 1640. He had two sons Nicholas and Nehemiah, the latter of whom removed to Fairfield, Conn., and was the ancestor of the Olmsted family in Norfolk County, Mass. Two nephews of James Olmsted, John and Richard, came either with their uncle or at about the same period, the former of whom settled in Norwich, Conn., and the latter, first in Hartford, and afterwards in Norwalk, in the same state.

George Olmsted, the father of the subject of this sketch, was a farmer in Enfield, Conn., to which place his father had removed from East Hartford. He married Sylvia, daughter of Ensign John Russell, of Somers, Conn., who was a soldier in the War of the Revolution. John Olmsted, the subject of this sketch, and the son of George and Sylvia (Russell) Olmsted, was born in Enfield, Conn., June 1, 1820,



John Christy

and was educated at the public schools of his native town and at the Wilbraham and Westfield academies in Massachusetts. At the age of twenty he established himself in Enfield as a manufacturer of tin ware and dealer in paper stock. In this business Mr. Olmsted continued twelve years, until he was thirty-two years of age. In 1852 he sold out his business in Enfield on account of ill-health, and removed to the adjoining town of Somers, where an out-of-doors life on a farm fully restored him. In 1860 he became a citizen of Springfield, Mass., where he formed a partnership with Lewis H. Taylor for manufacturing cotton batting and dealing in cotton waste and paper stock. The batting mill of the firm was on Mill River, and its business was later enlarged by the manufacture of twine in Westfield. Mr. Olmsted in 1866 bought out the interest of Mr. Taylor and carried on the business alone until 1880, when he formed a partnership with Frank E. Tuttle, under the firm-name of Olmsted & Tuttle. In 1888 the business of the firm was removed to Chicopee, and a stock company was formed bearing the name of the Olmsted & Tuttle Company, with Mr. Olmsted as president and Mr. Tuttle treasurer, which carries on a business amounting to a half of a million per year.

But Mr. Olmsted's shrewdness and skill have not been confined to the business in which he was reared. He was an original stockholder in the Springfield Street Railway Company, which in its earlier days was in a languishing and unprofitable condition, and while in that condition he was made its president and assumed its management. At that time its equipment consisted of about a dozen cars and forty horses, and about 400,000 passengers were carried in a year. Under his management the tracks have been extended to Chicopee, West Springfield, Indian Orchard and Holyoke, electric power has been adopted, its annual passengers number about ten millions, and its stock is one of the most desirable in the market. The Northampton Street Railway Company is also largely under his management, and he is the president of the company. So far as other corporations and associations are concerned, with which he is connected, the long list of offices held by him, as either president, director or trustee, shows how eagerly he has been sought to have a voice in the management of enterprises demanding for their success a clear head, a sound judgment, a progressive but conservative spirit, and an incorruptible integrity. Besides the positions held by him and referred to above, he is president of the First National Bank of Springfield, president of the Olmsted & Tuttle Company, director in the Indian Orchard Company, director in the United Electric Company, director in the Metallic Drawing Roll Company, director in Oak Grove Cemetery Association, trustee of the Hampden Savings Bank of Springfield, and vice-president of the City Library Association.

In the City Library Association, of which he is vice-president, Mr. Olmsted feels a deep interest. To his public spirit and activity in raising the necessary funds, supplemented by generous and substantial gifts, the construction of the Art building connected with that association is mainly due. He fully realizes the importance of this institution as a means of educating and refining the public taste, and, while it reflects the highest credit on the city of his adoption, it bears abundant testimony as to the character of the man, who has been always ready to make it his beneficiary.

While Mr. Olmsted has always felt a deep interest in politics, and in maintaining the purity of the political life of his state and country, he has rarely permitted himself to accept public office. He was a member of the Common Council from Ward 2, of Springfield, in 1865, and from Ward 1, in 1869, and alderman from Ward 1, in 1877-78-79 and 1880. He was a member of the Massachusetts House of Representatives in 1883, and the office of mayor, had he been willing to occupy it, has for

many years been within his reach. From the time when he came of age up to the formation of the Republican party, he was an earnest participator in the anti-slavery movement. In 1842, he cast his first vote, and, in company with two others, he went to the polls in Enfield, and amid the jeers of the crowd voted for Francis Gillett, the abolition candidate for governor. He voted in 1844 for James G. Birney, as a presidential candidate, and attended every anti-slavery convention in Connecticut. He knew Giddings, Lovejoy, Garrison, Wade, Wilson, Hale, and other liberal leaders, and in 1860, owing to a distrust of the anti-slavery sentiments of Abraham Lincoln, had, early in the campaign, resolved to refrain from voting. An accidental visit to Springfield, Ills., during which he had an interview with Lincoln, changed his mind, and Lincoln received his vote. Since that time he has been an ardent supporter of the Republican party, and the principles which animate it. He has been a subscriber to the *New York Tribune* since its establishment in 1841, and to the *Springfield Republican* since its establishment in 1844.

Mr. Olmstead married, in 1842, Rhodelia E. Langdon, of Somers, Conn., who died September 29, 1891, and has had three children; Kate E., who married Henry J. Beebe, and Mary R., who married Frank H. Goldthwaite, both of whom are living in Springfield; and Elizabeth H., who died in the second year of her life.

JAMES BICHENO FRANCIS.

IN the various important engineering operations conducted in the United States during the first half of the present century English and Scotch engineers played an important part. Polytechnic Schools on this side of the water have been established at comparatively recent dates, and, while until the Revolution the colonies depended wholly on experts from home, it could not be expected that in a year or a generation the education necessary for the consummation of difficult enterprises could be furnished at our own schools of scientific learning. It is probable that no foreign engineer has done so much in the development of American industries, or acquired a higher reputation, than James Bicheno Francis, the subject of this sketch.

Mr. Francis was born in Southleigh, Oxfordshire, England, May 18, 1815. In 1829, at the age of fourteen, he became an assistant of his father, then superintendent of the Duffryn, Llynwi and Porth Cawl Railway in South Wales, and two years later was employed on the Great Western Canal in Devonshire and Somersetshire. At that time the construction of railroads was beginning in the United States, as well as in Great Britain, and, anticipating the probable need of expert knowledge in the projection and laying out of steam roads in the new world, he determined to seek his fortune on this side of the ocean. In 1833, at the age of eighteen, he landed at New York on the 11th of April, and naturally applied for employment to George Washington Whistler, then the most eminent American railroad engineer and contractor. Mr. Whistler was a graduate at West Point in 1819, and three years later was teacher of drawing in this academy. He served afterwards on the Northern Boundary Commission until 1828, and in 1829 went to Europe in the employ of the Baltimore and Ohio Railroad Company. He superintended the construction of the Paterson and Hudson River, the Boston and Providence, the Stonington and Providence and the Massachusetts Western Railroads. He afterwards was in the employ of the Russian government, and died at St. Petersburg, April 7, 1849.

Mr. Francis was fortunate enough to be favorably received by Major Whistler, and was at once given a position on the Providence and Stonington road, then build-



James B. Francis

ing under the Resident Engineer, James P. Kirkwood. In 1834 the proprietors of locks and canals, in Lowell, Mass., began the construction of locomotives in the machine shop, which they had established in 1829, and secured the services of Major Whistler to take charge of it. Mr. Francis had so thoroughly commended himself to Major Whistler that he took him as an assistant to Lowell, and he remained with him until Mr. Whistler left in 1837, when, at the age of twenty-two, he was appointed engineer of the Locks and Canals Company.

In 1845 he was appointed agent as well as engineer of the Company, and had placed in his hands the direction and management of the entire water-power of the Company with the designing and construction of the improvements which have given to Lowell its important position in the industrial world. And not only was he the engineer and agent of the Locks and Canals Company, but he was constantly consulted by the various corporations deriving their power from that Company. In 1846 he designed the enlargement of the water-power at Lowell by the construction of the Northern Canal, and in 1850, foreseeing the possibility of a recurrence of the great Merrimack freshet of 1785, he constructed safeguards in the old canal, which two years later, when the actual recurrence occurred, saved the canal and mills from destruction. For the sagacious foresight exhibited in a work thought unnecessary by others he was rewarded by the citizens of Lowell by the gift of a service of plate. He also reconstructed the Pawtucket Dam across the Merrimack River and applied hydraulic lifts to the great gates of the Pawtucket Canal.

The distribution of water-power, and the determination of its value among the several corporations supplied, were among his duties as engineer, and these required extended experiments on a large scale, a concise description of which was published in 1855 under the title of "Lowell Hydraulic Experiments." It has been said that, "This work forms an era in the literature of hydraulic engineering, and is recognized as of standard authority, the experiments having been conducted on a scale and with an accuracy of detail and record hitherto unprecedented; and whatever may hereafter be effected towards the evolution of reliable hydraulic formula will derive much of its value from a recognition of the principles and methods pursued by Mr. Francis in conducting these experiments, which were not undertaken as a purely elementary problem in hydraulic science, but, as before stated, grew out of the necessity for a practicable determination of the amount of water distributed to the various mills in their daily operation under every possible contingency of flow."

In 1885 Mr. Francis resigned his connection with the Locks and Canals Company, having served two years as assistant engineer, forty-eight years as engineer and forty years as agent, covering in all a period of fifty years. Standing as he did at the head of his profession of hydraulic engineering, his services were constantly in demand as consulting engineer throughout the country. His advice was called for in the construction of fifty water-power establishments, scattered over our own country and Canada, and also of water-works in five different states and the provinces, as well as of structures and irrigation works in California. Upon his resignation the Company presented him with a service of plate, and in their letter accompanying the gift declared, "That to the eminent ability and wisdom which have distinguished your administration, the marked success of the Lowell manufacturers has been largely due." He was appointed consulting engineer of the Company, and held that position until his death.

Mr. Francis was chosen, in 1844, a Fellow of the American Academy of Arts and Sciences, and in 1852 a member of the American Society of Civil Engineers. He was chosen President of the latter society in 1881, and Honorary Member in 1892.

He was also chosen a member of the Boston Society of Civil Engineers in 1848, and its President in 1874. In addition to the above, he was a member of the American Philosophical Society of Philadelphia, a member of the Boston Society of Natural History, and honorary member of the Manchester Historical and Genealogical Society, the Trinity Historical Society of Dallas, Tex., and the American Society of Irrigation Engineers of Utah. His eminent ability was also recognized by Dartmouth College and Harvard University by the conference of the degree of Master of Arts, by the former in 1851 and by the latter in 1858.

It need not be said that such a man as Mr. Francis had no taste for politics or political office. Such positions as he held at various times in the City Council and in the Legislature were only honored by his acceptance of them. He devoted his life to his profession, and only with a single eye to that can a man acquire fame. Not only to the practical features of his pursuit did he give his time and study, but also to its literature. He was a prolific writer, and on his literary productions alone his reputation might safely rest. There are on file in Lowell no less than two hundred and seventy-six papers from his pen, forming almost an encyclopedia of engineering knowledge. A list of these contained in the Proceedings of the American Society of Civil Engineers discloses the variety of scientific subjects treated by him, and the multifarious enterprises, public and private, in which his advice was sought.

Mr. Francis married, July 12, 1837, Sarah W., daughter of George Brownell, of Lowell, who with four of the six children are living. His children are George Ebenezer; James, who succeeded his father in 1885 as agent of the Locks and Canals Company, Charles and Elizabeth Francis Bennett. Mr. Francis died in Boston, September 18, 1892, and in 1893 his widow erected a memorial of her husband in St. Anne's Church, in Lowell, which Mr. Francis had attended. The memorial includes a reredos, retable, altar and credence of elaborately carved stone, marble and onyx, with an enamel mosaic flooring with altar step, altar piece and communion rail step in harmony. A memorial inscription is carved in the lower part of the reredos and behind the altar as follows:—

TO THE GLORY OF GOD,
THIS ALTAR AND REREDOS ERECTED,
AND THIS SANCTUARY REFITTED,
IN LOVING MEMORY OF
JAMES B. FRANCIS,
BY HIS WIFE,
SARAH W. FRANCIS,
A. D. 1893.

SETH JAMES THOMAS.

FEW men in the community carry in their veins as much of the Pilgrim blood as that of which Mr. Thomas could justly boast. His first American ancestor, John Thomas, at fourteen years of age, sailed from London for New England September 11, 1634, in the ship "Hopewell," Thomas Babb, master, and found his way to Marshfield, Mass. Without parents or near friends, he was taken into the family of Governor Edward Winslow, and, when of age, became an occupant of a part of the land granted to the governor by the Plymouth General Court, and this land remained in the family until 1820. He married December 21, 1648,



John J. Kansas

Sarah, daughter of James and Sarah Pitney, who came, at seven years of age, with her parents to New England in the ship "Planter," in 1634.

Samuel Thomas, son of John and Sarah, was born in Marshfield November 6, 1655, and there died September 2, 1720, having followed the occupations of inn-holder and farmer. He married May 27, 1680, Mercy, daughter of Deacon William and Sarah (Dingley) Ford and granddaughter of widow Ford, who came to Plymouth in the ship "Fortune" in 1621.

Nathan Thomas, son of Samuel and Mercy, born in Marshfield November 21, 1688, was a tanner and farmer in that town. He married March 4, 1713, Alice Baker, who died February 1, 1715. He again married January 2, 1716, Abiah Snow, who died February 1, 1718, and for a third time married Sarah, daughter of Deacon John Foster, and died November 3, 1741.

Nathan Thomas, son of Nathan and Sarah, was born in Marshfield, and married Silirna Soule, of Duxbury, for his first wife, and for his second, in November, 1756, Sarah, daughter of Jedediah and Mary (Croad) Bourne.

Bourne Thomas, son of Nathan and Sarah (Bourne) Thomas, was born in Marshfield February 14, 1772, and married in 1803, Sarah, daughter of Thomas and Anne (Phillips) Dingley, and was the father of the subject of this sketch. Besides the families above mentioned, of Foster, Phillips, Croad, Bourne and Dingley, all of which date back to the earliest days of the Plymouth Colony, he was descended from John Rouse, one of the early settlers of Marshfield, whose name has been perpetuated by Rouse's Hummock, an elevation on the beach near the landing place of the French ocean cable, and also from Peregrine White, the first child born of English parents in New England.

Seth James Thomas, son of Bourne and Sarah (Dingley) Thomas, was born in Marshfield November 29, 1807, and was educated in the public schools of that town. In 1823, at the age of sixteen, he was apprenticed to Daniel Messenger, a hatter, who had a shop on Washington street in Boston. In those days, a hatter manufactured, as well as sold, hats, and Mr. Thomas was apprenticed to learn the trade. After coming of age, he established himself in the business of a hatter in Boston, and the writer remembers well his store on the easterly side of Washington street, north of State street. Born a Democrat, and early becoming interested in politics, he took an active part in the campaigns of 1840 and 1844, during which he was one of the leading stump speakers of his party. In 1843, he was a representative from Boston, and, during the memorable contest for the speakership, during which Thomas Kinnicutt, of Worcester, who had been speaker in the preceding House, was the Whig candidate, and finally withdrawn, Mr. Thomas was the Democratic candidate, and was defeated by one vote by Daniel P. King, the Whig substituted candidate. That was the year when, under the majority law, there was no election of governor by the people, and Marcus Morton was chosen by the legislature by a majority of one vote. The contest for the speakership was so close between Mr. Kinnicutt and Mr. Thomas, an election being defeated by one or two scattering votes, that the withdrawal of Mr. Kinnicutt became necessary in order to secure the votes of the disaffected.

After some years' residence in Boston, Mr. Thomas removed to Charlestown in 1845, where he became an active and popular citizen, and, in the days of a volunteer fire department, was made chief engineer. While in Boston, he was a member of the volunteer militia and lieutenant of a company in the Third Regiment, commanded by John T. Dingley, a native of Marshfield. He was afterwards chosen captain of the company, and finally commissioned, September 24, 1836, by Governor

Everett, colonel of the regiment, holding that position until his resignation, April 11, 1838. After the election of President Polk and his inauguration, he was appointed by him naval store-keeper at the Charlestown navy yard, and abandoned his business as hatter. While occupying the position of naval store-keeper, he conceived the idea of studying law, and entered the office of John P. Healy, who occupied an office with Daniel Webster in the old building at the corner of Court and Tremont streets, and who was a quasi-partner of Mr. Webster. He was admitted to the Suffolk bar November 7, 1849, and at once began practice.

Mr. Thomas was well fitted for his new career. Possessing naturally a strong mind, well informed by reading and study, a somewhat controversial spirit, and an unusual command of language and readiness of speech cultivated during his political career, he at once took high rank at the bar. Having been himself a business man, he knew what chords to touch in the breasts of the average business man on the jury, and rarely touched them unsuccessfully. It was well understood that he refused to become counsel in a case unless he believed that the claim or defence of the client was well founded, and therefore, when he did appear in court, he started with a strong argument on his side. In presenting a case to a jury, he did not, like many lawyers, attempt to strengthen his weak points, but rather ignored them. He was shrewd enough to know that in defending them he was only making them more apparent. He dwelt upon his strong points, and, with these strengthened, his effort was to weaken and pierce the weak points of his antagonist.

Mr. Thomas never permitted his temper to be ruffled in the trial of a cause. Not alone because he was a man of calm temperament, but also because he knew that, when an attorney lost his temper, his case was lost also. He was a man of quaint humor, and this was shown, not only in his delicate by-play in court, but often in a new and striking scheme of treatment in a case, which did not fail to excite an interest in his side. As, for instance, in defending a client, who was sued for breach of promise, after the introduction of evidence by the claimant as to the bad character of his client, he, in cross-examination, sought to make that character as bad as possible, and then argued to the jury the absurdity of claiming damages for an escape, for which rather she should be thankful.

As somewhat illustrating his humor, the writer remembers a horse case in which he acted as counsel at the Plymouth court. He was an ardent lover of horses, and knew about as much about them as a veterinary surgeon. For this reason he was occasionally called on by his friends to appear for them in cases involving, perhaps, the soundness and warranty of a horse. In this case, he called an old man living in Pembroke, named Barker, as an expert. He knew the witness well, but the opposing counsel, a Boston lawyer, had never seen or heard of him. Mr. Barker had owned more horses than any ten men in Plymouth County, but Mr. Thomas, in establishing his competency as an expert, asked but few questions, and permitted his cross-examination to proceed, knowing that before it was finished there would be some fun. Mr. Barker, said the attorney, you call yourself an expert? No, sir, I said I knew something of horses. Now I should like to know how many horses you have ever owned. Have you ever owned fifty? Well, sir, I might have. Have you ever owned forty? I never counted them. Have you ever owned thirty? I shouldn't wonder. You do not seem to have had much experience in horse flesh after all. Have you ever owned twenty, or even ten horses? I never counted them, sir. Now, Mr. Witness, I will thank you to tell the court and jury how many horses, according to your best judgment, you have ever owned? Well, I should guess about a thousand, and this settled the question as to his competency as an expert.



Ellbridge Mason

Mr. Thomas was retained as counsel for the claimants in the proceedings against the negroes Sims and Burns under the Fugitive Slave Law. He did not seek the task imposed upon him, but would rather have avoided it. He was retained on the suggestion of Mr. Webster, then secretary of state, who, in a letter to him, desired him to accept the retainer. He realized the situation in which the government was placed, with a possibility of an outbreak of southern violence in case the law should be overridden in Massachusetts. On the other hand, he realized that a defense of the law would be an unpopular act, endangering his reputation and business. He accepted the retainer, and, whatever may be thought of the law he was sustaining, no more heroic act was ever done by a Massachusetts lawyer since Jeremiah Gridley defended the writs of resistance in 1761, and John Adams defended Captain Preston and others of the Boston Massacre in 1770.

Mr. Thomas continued in active practice at the Suffolk bar until his death, which occurred, after a very short illness, at his home in Chestnut street, Boston, December 6, 1895, at the age of eighty-eight years and eight days. After the death of Sidney Bartlett he was the Nestor of the Suffolk bar. The writer recalls few recent members of that bar who reached as great an age. Mr. Sidney Bartlett, above mentioned, died at the age of ninety; Samuel Dunn Parker, at the age of ninety-three; Josiah Parsons Cooke, at ninety-three; Josiah Quincy, at ninety-two, and Tyler Bigelow, at eighty-eight.

Mr. Thomas married, November 29, 1832, Ann Maria, daughter of Hezekiah Stoddard, of Boston. She died November 20, 1886. Two sons survived him, Frank H. Thomas, who is in business in St. Louis, and James Bourne Freeman Thomas, who graduated at Harvard in 1860, and was admitted to the Suffolk bar, February 26, 1863, when he became associated with his father in business, and so continued until the latter's death.

ELBRIDGE WASON.

JAMES WASON was born in the parish of Ballymanus, county of Antrim, Ireland, in 1711, and came to New England with his brother Thomas in 1736. He married November 30th, 1736, at Portsmouth, N. H., Hannah Cadwell and had seven children. Thomas Wason, the third child of James and Hannah Wason, married Mary, daughter of Robert Boyd, of Londonderry, N. H., December 1, 1772, and had eight children. Robert Wason, the sixth child of Thomas, was born in 1781, in Nottingham West, now Hudson, N. H., and married December 26, 1808, Mary, daughter of John and Elizabeth (Batchelder) Batchelder, and had nine children. Elbridge Wason, the oldest of these children, and the subject of this sketch, was born September 26, 1809, in New Boston, N. H., where his father took up his residence with his uncle, Robert Boyd, in 1803. After attending the public schools of his native town, and pursuing a course of study in the Derry Academy, he taught school for a time in Windham and Amherst, N. H. In December 1831, during a visit to Boston, he was attracted by opportunities there disclosed to him, for a business career, and returning home he at once made preparations for a permanent removal to that city. On the 8th of March, 1832, he took up his residence in Boston and entered as clerk the wholesale West India goods store of Pierce & Goodnow, in South Market Street. He remained with this firm, and after the dissolution of the firm in the latter part of 1833, with Mr. Goodnow alone, until the early part of 1837, when he entered into a partnership with his cousin William Wason, doing business

on Blackstone Street. On the 1st of September, 1837, he formed a new partnership with Henry Pierce, of Lowell, under the firm-name of Wason & Pierce, wholesale grocers, doing business at 61 Chatham Street. In 1839, Rufus Clement, of New London, N. H., was admitted a partner, and the firm name became Wason, Pierce & Co. Mr. Clement retired from the firm April 1, 1847, and soon after Robert Boyd Wason, a brother of Elbridge Wason, was admitted to the firm, the firm-name remaining the same. At a later date, George A. Wadley, the bookkeeper of the firm, was admitted to the partnership, and retired January 1, 1865. At the last-mentioned date, Henry E. Pierce, son of Henry Pierce, became a partner, without a change in the name of the firm, and remained until his death in 1881. Until the recent deaths of Elbridge Wason and Henry Pierce the firm was composed of these gentlemen and Robert Boyd Wason and carried on their business in the same store where they began business in 1837.

In August, 1858, Mr. Wason changed his home from Boston to Brookline, where he continued to reside until his death.

In Brookline, as well as in Boston, he exhibited the same public spirit, which characterized him as a native and resident of New Boston. Always devoted to the cause of religion, he was for some years during his residence in Boston an attendant at the Central Church, under the pastorate of Rev. Wm. C. Rogers, then worshipping in Winter street and at present at the corner of Berkeley and Newberry streets on the Back Bay; and at Brookline he was a chief mover and contributor in the erection in 1861, of the Harvard Church, of which he was also a zealous, influential and respected member. He was also a member of the building committee, and for some years a member of the parish committee. Mindful, however, of his native town he continued to be interested in its prosperity, and aided in enlarging and establishing the cemetery there in memory of his father and mother buried within its limits. His business career was a remarkable one. It illustrated the certainty of success which attends assiduous application, honorable dealing and conservative methods.

Mr. Wason married first, April 21, 1851, Mary, daughter of Samuel and Mary (Gardner) Stickney, of Boston, who died August 15, 1863. He married second, May 17, 1865, Mary Isabella, daughter of Hon. Leonard and Mary Isabella (Dickey), Chase, of Milford, N. H. He died at Brookline, Massachusetts, August 19, 1887.

RUFUS PACKARD KINGMAN.

MR. KINGMAN was the son of Benjamin and Rebecca (Packard) Kingman, and was born in North Bridgewater, now Brockton, Mass., November 4, 1821. His first American ancestor was Henry Kingman, who, with a wife (Joanna) and six children, came from Weymouth, England, and settled in Weymouth, Mass., July 10, 1635. He was educated in the public schools of his native town and under private instruction. After leaving school he assisted his father on his farm until he was eighteen years of age, when he entered as clerk the dry-goods store of William F. Bielt, in North Bridgewater, and in 1846 became a partner with Mr. Brett, under the firm-name of Brett & Kingman. In 1850, while a member of the firm, he erected the first brick building in the town, now known as Kingman's Block.

In 1854 Mr. Kingman retired from the firm on account of somewhat enfeebled health, and shortly after was chosen cashier of the newly-organized bank in North Bridgewater. He remained in this position, performing his duties with marked



W. H. H. H.
W. H. H. H.

ability, until 1866, when the directors preferred to wind up the bank rather than organize under a national charter. In 1874 the Home National Bank was chartered, and Mr. Kingman was chosen president, and continued in office until his death. While cashier of the North Bridgewater Bank he was chosen town-treasurer, and served the town nine years. In 1872 he was chosen assessor, and re-chosen in 1873 and 1874. In 1881 he was a member of the last Board of Selectmen under the town government of Brockton, as North Bridgewater was then called.

When the North Bridgewater Savings Bank was closed in 1876, he was appointed with Ellis Ames, of Canton, trustee, to settle its affairs. In 1881 he was active in the inauguration of the city of Brockton, and was chosen a member of its first Board of Aldermen, and re-elected three times, serving as chairman of the Board. He succeeded his father as agent of the Hingham Mutual Fire Insurance Company, and in 1871 was chosen a director of that company. He was one of the first board of directors of the North Bridgewater Board of Trade, and in 1874 was one of the corporate members of the Brockton Agricultural Society, one of its first directors, two years treasurer and later its president.

Mr. Kingman was such a man as is always selected to manage enterprises where good judgment, decision of character and strict integrity are needed. The government of his town and city, the community in which he lived, and the institutions with which he was associated felt his influence. He had no ambition to win public honors, but moved serenely and unostentatiously along the walks of social and business life, unconsciously winning honors of far more value than those which attach to public station. Though never robust, his temperament was so calm that labor was easily performed, and the results of his work were more marked than those of many more vigorous than himself.

When the Brockton City Hospital was organized in 1890, Mr. Kingman was chosen vice-president, and, under the mayoralty of William L. Douglas, he was appointed in 1890 chairman of the Sewage Board, a position which he held until his death. When the Kingman Memorial Association was formed, he was chosen treasurer, and continued in that position as long as he lived. The monument in memory of the earliest American ancestors of the Kingman family in the Brockton Union Cemetery was erected by him.

Mr. Kingman married, August 30, 1852, Abby, only child of Captain Winthrop and Sally (Hawes) (Baker) Sears, of Yarmouth, Mass., and died February 20, 1894.

JAMES JOHNSON WARREN.

THE ancestry of James Johnson Warren has been traced, with a considerable degree of certainty, to a time in English history several hundred years before the settlement of New England. Without, however, attempting to follow the explorations of the genealogist among the records of English parish registers, it is sufficient to say that the earliest American ancestor of the family, to which the subject of this sketch belonged, was John Warren, who was born in England in 1585, and, coming to Massachusetts, was among the first settlers of Watertown. He married a wife, Margaret, and died December 13, 1667. He had three children: Mary, Daniel and Elizabeth. Daniel Warren, son of John and Margaret Warren, born in

England in 1622, died in Watertown February 13, 1716. He married, December 10, 1650, Mary Barron, and his children were: Mary, Daniel, Hannah, Elizabeth, Sarah, John, Joshua and Grace.

John Warren, son of Daniel and Mary (Barron) Warren, was born March 5, 1656, and died July 11, 1703. He married, March 22, 1683, Mary Brown, and his children were: John, Jonathan and Daniel. John Warren, son of John and Mary (Brown) Warren, was born March 15, 1685, and died March 25, 1745. He married first, May 26, 1704, Sarah Jones; second, January 2, 1708, Abigail Livermore; and third, June 20, 1744, widow Lydia Bond; and his children were: Sarah, Mary, Ann, John, Josiah, Isaac, Elisha, Ebenezer, Abigail, Prudence, Beulah and Lydia. John Warren, son of the above, was born March 2, 1713. He married first, February 20, 1740, Sarah Harrington; and second, April 11, 1754, Mary Merrick. His children were: Anne, Jonathan, Anna, John, Jedediah, Philemon, Lydia, Tryphena, Silas, Ezra and Jane.

Philemon Warren, son of John and Mary (Merrick) Warren, was born in Weston, Mass., January 3, 1761. He removed to Brimfield in 1791, and carried on the business of a tanner and currier. He continued in that occupation until 1843, and died March 10, 1847. He married, April 21, 1791, Hannah Johnson, and his children were: Elvira, Nabby, John Merrick, Sophronia, Susan and Fitz Henry. He was a cousin of Dr. Joseph Warren, who was killed at Bunker Hill.

John Merrick Warren, son of Philemon and Hannah (Johnson) Warren, was born in Brimfield, September 6, 1797, and died September 4, 1868. He married first, July 18, 1819, Rachel Harvey; and second, September 6, 1848, Charlotte R. Burley, of Salem, Mass. He became associated with his father in business as a tanner and currier, and in 1818, in order to make a sure market for their leather, they started one of the first shops in Massachusetts for the manufacture of shoes. His children were: Charles Carson, James Johnson, Elizabeth, Harriet Lyon, Sarah Jane and Julia Carter.

James Johnson Warren, the subject of this sketch, was the son of John Merrick and Rachel (Harvey) Warren. He was born in Brimfield, Mass., March 23, 1822. He was educated in the public schools of Brimfield, at the academies in Ellington, Conn., and Monson, Mass., and at the Worcester Manual Labor High School, later known as the Worcester Academy, remaining at the last-named institution two years. In 1838 he went to New York, where he remained three years as a clerk in a leading leather house. Returning from New York in 1841, he entered as a clerk the boot and shoe and leather establishment of Philemon Warren & Sons. After he became of age, he went to Petersburg, Va., and there opened a wholesale and retail boot and shoe store, in company with his brother Charles. His stay in Virginia was short, and, at the end of a year, he returned to Brimfield, and for a number of years engaged in the business of tanning, and manufacturing card-leather. In 1867 he moved his business headquarters to Worcester, and formed a partnership with O. H. Weston. Mr. Weston had been carrying on the produce business in Worcester, and the business of both Mr. Warren and Mr. Weston was blended, and both the leather and produce business were carried on by the firm for twelve years. In 1879 the firm was dissolved, and Mr. Warren erected the granite building on Washington Square (now occupied by the J. J. Warren Company), in which building he continued in the leather business, taking as a partner his son, John M. Warren, under the name of James J. Warren & Son.

In 1883 Mr. Warren became engaged in the manufacture of fine leather goods, starting in Boston for that purpose a corporation known as the Harrell Manufacturing



James P. Smith,
James J. Warren



Geo. B. Nichols

Company, of which he was president, and his son, John M. Warren, treasurer. In 1887 the business was moved to Worcester, occupying Mr. Warren's building at Washington square, and at that time the corporate-name was changed to J. J. Warren Company.

Fine leather and canvas goods of every description have been manufactured in increasing volume from year to year, until this company's factory has become one of the most interesting of Worcester's varied industries. So great is the variety of articles turned out, and so many the uses to which they are put, that a fair idea in regard to them cannot here be given; but they range from a small coin purse to a large sole-leather trunk, including everything in the form of toilet-cases, music, athletic and sporting goods, valises, regalia-cases, traveler's canvas extension-cases, bicycle saddle-leathers, tool-bags and luggage-carriers, sample-cases, belts and straps of all kinds. Aside from its regular stock, this company makes a specialty of furnishing to order any article that may be desired in leather, canvas, mackintosh cloth and various other materials. One hundred and fifty hands are employed.

Since Mr. Warren's death the business of the company has been continued under the following officers: John M. Warren, president; Walter F. Davison, secretary; and William H. Hayden, treasurer.

Mr. Warren had no aspirations for public office, and, so far as public honors are concerned, only permitted his services to be used as a trustee of the Hitchcock Free High School in Brimfield, his native town. In his political affiliations he was a Republican. He was a man beloved in his home, where happiness and joy were always felt as the influence of his tender devotion, his sunny nature, and his warm heart. Outside of his home his sympathies were always alive to the wants of the poor and afflicted, and his hand was ever open to alleviate their needs and add comfort to their lives. There can be pronounced no higher eulogy of any man than to say, what can be truly and deservedly said of him, that he was a loving husband and father, a kind neighbor, a respected citizen, a Christian man.

Mr. Warren married, October 24, 1844, Mary, daughter of Ichabod and Mindwell Emmons, of Hinsdale, Mass.; and their children are Fannie Emmons, Ellen Eliza, Mary Wheeler and John M. The son was born in Brimfield, Mass., on May 10, 1857, and is now, as has been stated, the president of the J. J. Warren Company. Mr. Warren died in Worcester, May 21, 1893, and his widow is still living in that city. The old homestead at Brimfield is still retained by the family.

GEORGE BATES NICHOLS.

THE ancestor of Mr. Nichols on the paternal side emigrated from Wales to New England in the latter part of the seventeenth century, and settled in that part of Hingham, which was set off and incorporated as the town of Cohasset in 1770. His ancestor on the maternal side came from Scotland. The mingling of blood from these two sources could not fail to create a vigorous line of descendants.

Mr. Nichols was the son of Seth and Sally Nichols, and was born in Weathersfield, Vermont, April 15, 1820. He was educated in the public schools and at the Meriden Academy, leaving the latter institution at the age of fifteen. In 1836, a year after leaving the Academy, he went to Boston, and entered as clerk the dry-

goods house of Farrington & Converse, where he remained until he was twenty-one. He then, having acquired a thorough knowledge of the dry-goods trade and established a reputation for quick intelligence, unusual ability and strict integrity, was admitted a member of the dry-goods house of Amidown, Bowman & Co. At the end of ten years, the style of the firm was changed to H. Amidown & Co., which was succeeded in business by Edwards, Nichols and Richards, of which Jacob Edwards, the treasurer of the Edwards Manufacturing Company of Augusta, Maine, and Dexter N. Richards, the treasurer of the Bates Manufacturing Company of Lewiston, Maine, were with Mr. Nichols, members. In 1865, the business of this firm was closed, and during the next two years, Mr. Nichols was engaged in Western affairs. In 1867, he associated himself with William R. Dupee, who had been a member of the firm of J. C. Howe & Co., a prominent Boston dry-goods house, and John D. Parker, and established the firm of Nichols, Parker & Dupee in the wool business, with offices and store-rooms in Federal Street. Mr. Parker left the firm in 1874, and the firm continued under the name of Nichols, Dupee & Co., until the death of Mr. Nichols, its business being conducted for some years in Atlantic Avenue. The business of the firm was eminently successful, and Mr. Nichols gave to its management a care and attention which were only shared by those institutions, in which he was either a director or trustee, or by those offices of a more public nature, the duties of which he occasionally consented to assume. He was a director and the vice-president of the Manufacturers' National Bank, and for eight years before his death a trustee of the Boston City Hospital. He was appointed to the latter position by Mayor Hugh O'Brien in 1887 to succeed T. J. Dacey, and he at once took a prominent part in the management of that useful institution. He soon saw the expediency of establishing a Convalescents' House in connection with the hospital, and the final purchase of the Churchill estate at Milton Lower Falls, and the organization of what has proved a most efficient auxiliary to the hospital, were due to his wisdom and earnest efforts.

Mr. Nichols was several years a member of the Massachusetts House of Representatives, and, though a member of the political minority, was especially influential in shaping legislation. He was also at one time a member of the Boston School Board, and a delegate to the Democratic National Convention. He was often mentioned as a suitable candidate for the Boston mayoralty, but it was only to a very limited extent that he consented to assume cares and responsibilities which would be likely to conflict with his legitimate business.

In 1894, his health began to fail, and after that time his combat with disease was too severe to permit a bestowal of his time and attention to business cares, and in April, 1895, he withdrew from the activities of his firm, remaining, however, a member until his death, which occurred at his home on Walnut avenue, in Roxbury, November 15, 1895. His funeral, on the 19th, at which Rev. Percy Browne, rector of St. James' Church in Roxbury, officiated, was largely attended by his numerous friends and business associates, and his burial was in Forest Hill Cemetery. The directors of the bank, of which he had been vice-president, passed resolutions commending the diligence and wisdom which had characterized his connection with that institution, and the trustees of the City Hospital placed on record their sense of the inestimable loss which that beneficent charity had sustained. The resolutions passed by them commemorated "his fidelity and zeal, his discriminating wisdom, his honesty of purpose, and, above all, his deep sympathy with the sick poor, and his untiring efforts for their well-being and comfort."



A. Thuman

Mr. Nichols married in Boston December 8, 1844, Louisa, daughter of Daniel and Lois Rhodes, and at his death left a surviving widow and three children, George R. Nichols, living in New Jersey; Seth, a merchant in New York, and Ella Prudie, the wife of Charles de Cordova, of New York.

A. SHUMAN.



SHUMAN, one of Boston's great merchants, was born in Prussia, May 31st, 1839, and came to this country when but a child. The family settled in Newburg, N. Y., where young Shuman worked on a farm, when not at school, until he was thirteen years of age, when he went into a clothing-store. When but sixteen years of age he started in the world to make a fortune, and went to Providence, R. I. Not satisfied with the scope afforded him in that city, he came to Roxbury. This was in 1859. He at once began a business on the corner of Vernon and Washington streets.

Mr. Shuman, though of foreign birth, is intensely American, and many institutions are remembered by him from time to time in a practical manner.

The immense establishment, at the corner of Washington and Summer streets, denominated the "Shuman Corner," is the result of his business energy. It exhibits an achievement of no ordinary merit in the progress of mercantile improvement. The combined space of fourteen floors occupies an area of over two acres, and comprises a mammoth emporium that has no superior in New England.

With his employees no one is more popular than Mr. Shuman. He has arranged a system of purchasing homes for them, and no employer in Boston has bought so many homes for his help as he. He has loaned them money, charging no interest, and allowing them to pay back in small instalments. The appreciation of his many kindnesses has been manifested by his employees again and again in appropriate testimonials.

As he has conducted his own business with care, prudence and integrity, so has he conducted all offices of a public character which have been thrust upon him from time to time.

Mr. Shuman was married November 3, 1861, to Miss Hetty Lang; they have three sons and four daughters.

A Boston journal says of Mr. Shuman: "With the pluck that has throughout distinguished him, a few years after settling here, he opened a store, which has since developed to mammoth proportions on Washington street, but he has never left Roxbury. He is proud of his residence there, and delights to think that he has done much to make it the creditable place it is to-day.

The business premises in Boston are most colossal, but as large as they are, the firm is compelled to hire other buildings in the vicinity, for the convenience of help.

Mr. Shuman is first vice-president of the Boston Merchants' Association, a leading member of the board of directors of the Manufacturers' National Bank, president of the board of trustees of the Boston City Hospital, a member of the board of directors of the United States Trust Company, a member of the Mayor's Merchants' Municipal Committee, and one of the trustees of the Benjamin Franklin Fund.

Few public occasions of importance pass without the presence of Mr. Shuman, and his genial bearing makes him much sought after in social as well as commercial circles. He is essentially a self-made man."

GEORGE SAMPSON.

THE first American ancestor of the subject of this sketch was Henry Sampson, who came to Plymouth in the "Mayflower" in 1620, and settled early in Duxbury. He married, in 1636, Ann Plummer and had nine children. Stephen Sampson, of Duxbury, son of Henry, by a wife, Elizabeth, had eight children. Benjamin Sampson, of Duxbury, son of Stephen, born in 1686, married, in 1716, Rebecca, daughter of Jacob Cooke, of Kingston, Massachusetts, and had six children. Benjamin Sampson, of Duxbury, son of the above Benjamin, was born in 1729, and married, in 1759, Deborah Cushing, and had three children. He married, second, in 1770, Esther, and had two children. Benjamin Sampson of Kingston, son of Benjamin and Deborah (Cushing) Sampson, was born in 1759, and married in 1786, Priscilla Churchill, by whom he had four children. Isaac Sampson, of Plymouth, son of Benjamin and Priscilla (Churchill) Sampson, was born in Plymouth in 1789, and married, in 1822, Elizabeth, daughter of William Sherman of that town. His children were Elizabeth, born in 1824, who married John Kneeland, a native of Plymouth, who was for many years one of the supervisors of public schools in Boston; George, the subject of this sketch; and Isaac, who was born in 1830. Mr. Isaac Sampson was a highly respected merchant in Plymouth, and died in that town, December 11, 1833.

George Sampson, of whom this sketch is written, was born in Plymouth, May 28, 1825, and was not only descended from Henry Sampson, one of the "Mayflower" Pilgrims, but also carried in his veins the blood of Stephen Hopkins and Francis Cooke, two other passengers of the "Mayflower." His great-great-grandmother as above stated, was a daughter of Jacob Cooke, a grandson of Francis and a son of Jacob, who married Damaris, a daughter of Stephen Hopkins.

Mr. Sampson was educated in the public schools of Plymouth, including a high school for boys which was at that time kept in the town. Though several years younger than the writer, he was a pupil in the high school two or three years with him, and the writer remembers him well as a modest, earnest, obedient, conscientious boy, who mingled rarely in games, and never in mischief, a boy to whom the teacher would have never thought of addressing a harsh word and whom he would have never suspected of untruthfulness or participation in any wrong-doing. The boy was the father of the man, and exhibited in his youth those gentle and endearing traits which made his whole life so true and beautiful.

After leaving school, he spent a short time as a clerk in a store in Plymouth, and then entered as clerk the store of Alfred A. Andrews & Co., dry-goods dealers on Washington street, Boston. He entered in 1847, at the age of twenty-two, the office of George Adams, who was then conducting the publication of a Boston directory—an enterprise which he had started the year before.

Mr. Adams was a native of Plymouth, and, during the boyhood of Mr. Sampson, was associated with his older brother, Thomas, in the manufacture and sale of hats. His capacity for business was restricted in its activity by the narrow field in which it was confined, and both he and his brother removed to Boston and engaged in other enterprises. The first issue of the "Boston Directory" was in 1846, and the volume of that year measured six and a quarter inches by three and a half inches, and, as its preface stated, contained in three hundred and twelve pages twenty-six thousand,



George Sampson

four hundred and eighty-eight names, including those of three hundred and one people of color, given in the back part of the book.

The occupation of Mr. Sampson, when he entered the office of Mr. Adams, was that of a canvasser, but in a short time, owing to the thoroughness and accuracy which he exhibited in his work, he was made an arranger of material for the press, a position which required the greatest care and a realizing sense of the importance of having every name correctly spelled and its address accurately given. Mr. Sampson's work was fully appreciated by Mr. Adams, and he became finally so important a factor in the directory enterprise that in 1857 he became a partner in the business, under the firm-name of Adams, Sampson & Co. In 1865, Mr. Adams retired at the age of fifty-eight, having established the directory on a firm and permanent foundation, and secured his reward as its founder and chief manager in the accumulation of abundant means.

In 1866, soon after the retirement of Mr. Adams, Orlando H. Davenport became associated with Mr. Sampson under the firm name of Sampson, Davenport & Co., and Mr. Sampson became the chief manager of the business and chief organizer of the affairs of the office. In 1882, Mr. Davenport retired, but the firm-name remained the same until 1885, when William E. Murdock and Charles De Witt Marcy became associated with Mr. Sampson under the firm-name of Sampson, Murdock & Co. Under his administration not only has the "Boston Directory" kept pace in its increase in the number of names with the growing population of Boston, together with the population of Roxbury, annexed to Boston in 1868, of Dorchester, annexed in 1870, and of Charlestown, Brighton and West Roxbury, annexed in 1874, but it has been constantly improved by the addition of new and valuable features. Under his administration, also, directories of other cities, including Fall River, Gloucester, Lawrence, Lowell, Lynn, Newburyport, Amesbury, Attleboro and Taunton in Massachusetts, Providence, Newport, Pawtucket, Westerly, Woonsocket, Bristol and Warren in Rhode Island, Albany and Troy in New York, and Manchester in New Hampshire, have been started and successfully established; so that at the time of Mr. Sampson's death the business of the firm had assumed an imposing magnitude, and the little volume of three hundred pages issued in 1846, containing about twenty-seven thousand names, had grown into a stately book of twenty-two hundred pages, containing in 1896 two hundred and twenty-nine thousand, eight hundred and twenty-nine names, a complete directory of streets and a business directory of great value to the business community. Since 1856 the firm, of which Mr. Sampson was a partner, has issued a "New England Business Directory" of about the same dimensions as the "Boston Directory," the preparation of which demands the employment of a large number of skilled experts in the collection of material and carefully systematized work in the office. The "New England Directory," at first published once in three years, is now published biennially. The "Boston Directory," as now published, may be considered a worthy monument of both the enterprise and sagacity of Mr. Adams, its founder, and of the conscientious fidelity and business capacity of Mr. Sampson, in whose hands during half a century it has grown and developed.

The office of the *Boston Directory*, when first issued by Mr. Adams in 1846, was at the old number, 91 Washington street. After some years it was removed to the Simmons building, at the corner of Congress and Water streets, where it was burned out in the great fire, November 11, 1872. It was next located in the Globe Theatre building, on Washington street, between Essex street and Hayward place, where it was again burned out in May, 1873. During the next two years, it was located at 341 1/2 Washington street, and in 1875 was removed to the new building in Franklin

street, erected by the firm of Sampson, Davenport & Co., and now occupied by the firm of Sampson, Murdock & Co.

During the last fifteen years of Mr. Sampson's career, with his life work in the hands of efficient associates, he felt at liberty to relieve himself somewhat from the cares of business, and to use his abundant means in the gratification of his cultivated tastes and in benevolent acts. For the satisfaction of the former he spent two years in foreign travel, visiting nearly every country in Europe, and also Egypt and the Holy Land. For the latter he found daily opportunities, and no fellow-being was known by him to be suffering in pain or poverty who did not feel the generous warmth of his hand. The writer, who knew him well through life, remembers the repeated visits made by him to an old clerk of his father in Plymouth, who was lying on a bed of sickness at the end of a long life of singular purity and honesty, and the substantial gifts brought to relieve his dying hours. In a preface to the *Boston Directory* for 1896, the publishers say that his "last years were largely spent in travel and helping the unfortunate and needy, hundreds of whom will ever hold him in grateful remembrance for his benefactions." But it is unnecessary for the writer to quote the opinions of others concerning his character and life. After a communication with the world covering a period of more than three-score years and ten, he can say, with truth, that he has never known a purer and better man. We sometimes see men, of whom he was a type, living unspotted from the world, born in luxury, brought up away from corrupting influences, guarded on every hand against temptation, ignorant of the vices of the world, engaging in no business in which snares are laid for the unwary, who go down to their graves deserving no more credit for their innocence than statues of marble. But Mr. Sampson was a man who, immersed in business, and surrounded by its opportunities for deceit and cunning, alluring him to personal advantage, retained through them all his sweetness and tenderness and truly Christian spirit, as the writer has seen the waters of the Juniata flowing from the mountains, entering the muddy Susquehanna, but preserving their identity pure and untainted until they reached the sea.

Mr. Sampson married, June 19, 1855, Rebecca Francis, daughter of Henry Abbott and Rebecca (Francis) Hovey of Boston, who survives him. His home was in Roxbury. During the latter part of his life his winters were spent at the Hotel Thorndike, in Boston, where he died, January 30, 1896—in the words of another who also knew him well—"greatly loved and respected by all for his sterling worth, strict integrity and noble generosity." By his will he directed his executors to distribute the sum of five thousand dollars among the employees of his firm in the proportion of their terms of service. This thoughtful act was a fitting termination of a business life in which all who had been associated with him had been uniformly treated with considerate kindness and sympathy.

JOSEPH ACKERMAN JACKSON.

THE subject of this sketch was the son of William and Leviha A. (Leach) Jackson, and was born in Portsmouth, New Hampshire, May 24, 1836. His ancestors were of English origin and came to New England about the middle of the seventeenth century.

He was educated in the public schools, and at an early age was employed in various stores in his native town. In 1854, at the age of eighteen years, he went with his brother William to Fort Smith, Arkansas, and remained two years. In 1856 he



Jos A Jackson

returned to Portsmouth, and later in the same year came to Boston and entered as clerk the hat, cap and fur store of J. D. G. Burdett, at what was then 147 Washington Street, Boston, opposite the Old South Church. After continuing for a short time with that firm he was employed by Joseph Stone & Co., hatters and furriers in their store 37 Court Street, Boston, nearly opposite what is now Young's Hotel. In 1861 he bought out the business of J. E. Cook, located at 101 Court Street and continued the business as a retail hatter and furrier until 1869. While keeping this store he bought out in 1862 the New York Hat Store located in the Albion Building at the corner of Tremont and Beacon streets, where the building stands, now, occupied by Houghton & Dutton, and carried on the same business under the name of Jackson & Co. He occupied this store until it was outgrown by his increasing trade in 1888, when he removed to the large store No. 126 Tremont Street opposite Park Street where he continued in the retail trade as hatter and furrier until his death. In 1869 he sold his store at 101 Court Street above mentioned and formed a partnership under the name of Jackson, Rice & Vinson which opened a wholesale store for hats, caps and furs at 57 Franklin Street at the corner of Arch Street, which the firm occupied until burned out in the great fire of 1872. Immediately after the fire the firm moved its business to 109 Court street, where it remained until the autumn of 1873, when it removed to No. 30 Summer street, occupying a store rebuilt in the burned district. In 1879 Mr. Jackson retired from the wholesale business and opened a store for retail business at 412 Washington Street which he carried on in connection with his Tremont street store until his death.

Possessing an active and enterprising spirit Mr. Jackson engaged in operations outside of his regular business which, always conducted with foresight and shrewdness, proved largely remunerative. His judgment concerning the future value of real estate in Boston was always unerring, and his purchases of houses and lands were always advantageous. He had faith in the growth of Boston and its business, and the occasional distrust felt by timid capitalists, gave him opportunities for investment in real estate of which many feared to take advantage. Beginning his career in Boston at the age of twenty-two as a clerk in a retail store, with only his salary for his support, he left at his death, besides his two stores on Washington and Tremont streets, houses and lands which would justify his designation as one of the wealthy men of his adopted city.

Nor was he confined in the exercise of his business capacity to the bounds of his private business and operations. His ability, his executive skill and his thorough integrity were appreciated by the community in which he lived, and he was often called to occupy positions of trust, which he always filled with usefulness and honor, at the time of his death being a trustee of the Franklin Institution for Savings.

He was a member of Park Street Church, and a Free Mason.

Mr. Jackson married in Boston April 15, 1863, Miss Martha Jenkins Hutchinson, daughter of Henry and Lavina (Stevens) Hutchinson, and had the following children: William Henry, born May 15, 1864, who married Dora Weston Kimball, of Boston; Joseph Albert, born August 8, 1868, who married Cora Annetta Clark, of Seattle, Washington; Lillian Hutchinson, born September 30, 1872, and Ethel Louise, born July 4, 1878. Mrs. Jackson died April 16, 1888, and Mr. Jackson died September 5, 1894, at Brookline, Mass., where for some years he had his home.

CHARLES POTTS TALBOT.

MR. TALBOT was descended from John Talbot, the first Earl of Shrewsbury, who was killed at the battle of Chatillon, in 1458, leaving an estate in Ireland, in the parish of Templemore, on which his descendants lived for many generations. William Talbot, born on the estate, emigrated to America in 1807, and settled in Cambridge, New York. In that town he entered into the business of manufacturing broadcloth, associated with his son Charles, who, with other surviving members of the family, accompanied his father to America. William Talbot died in Cambridge in 1817.

Charles Talbot, son of William, was born in the parish of Templemore, and married there, December 28, 1802, Phœbe, daughter of Joseph White, and his children were John Walpole, born in Templemore April 25, 1805, who settled in Michigan; Charles Potts, born in Templemore, May 19, 1807; Edward Haskett, born in Cambridge, N. Y., August 7, 1810; Elizabeth Lucinda, born in Cambridge, August 5, 1812; Joseph White, born in Cambridge, August 24, 1814; Richard Ela, born in Cambridge, June 17, 1816; Thomas, born in Cambridge, September 7, 1818; Elias William, born in Danby, Vt., July 27, 1820, and Eleanor, born in Danby, July 23, 1822.

Charles Talbot removed, in 1819, to Danby, Vt., and continued there in the manufacture of broadcloth until his death in March, 13, 1823. In 1825 his widow removed with her eight children to Northampton, Mass., hoping to find there employment for her older sons. She died in Michigan, February 13, 1841.

Charles Potts Talbot, son of Charles and Phœbe (White) Talbot, was born as above stated, in the parish of Templemore, Ireland, May 19, 1807, and was an infant in arms when his father came to America. He attended the public schools in Cambridge, N. Y., and Danby, Vt, and removed with his mother, in 1825, to Northampton, Mass., where for a time he found employment in the woolen mills of John Shepard. After acquiring a familiarity with the business, he secured a situation as an overseer in the Middlesex Mills in Lowell, and removed to that town. In 1834 he established himself on his own account as a woolen manufacturer in Williamsburg, Mass., remaining there four years. In 1838 he took a lease from the Middlesex Canal Company of an old grist-mill plant on Concord river, in North Billerica, Mass., and, associating himself with his brother Thomas under the firm-name of C. P. Talbot & Co., began the business of grinding dye-woods. The firm continued until the death of Mr. Talbot in 1884. In 1849 the manufacture of chemicals was added to the business, and was carried on with uninterrupted success under the name of The Talbot Dye Wood and Chemical Company, until the establishment was sold in 1881.

In 1851, C. P. Talbot & Co. bought of the Middlesex Canal Company water-power in North Billerica, and in 1857 built a mill for the manufacture of woolen flannels and dress goods. Since the death of Mr. Talbot this mill has conducted its business as a joint stock corporation, under the name of Talbot Mills, of which, at the present time, Solomon Lincoln is president.

Mr. Talbot married, May 3, 1835, Harriet E., daughter of John and Polly Rogers, of Lempster, N. H., and his children were Edward R., who died in 1872; Julian, who resides in Lowell, and Fanny M., the wife of Richard H. Ewart, of New York. Mr. Talbot died July 6, 1884, and his widow, in the following year, erected,



G. P. Talbot

in the Lowell Cemetery, a stone chapel as a memorial of her husband, which was dedicated, with appropriate ceremonies, November 1, 1886.

Mr. Talbot was a man universally respected and beloved. One who knew him well has said that "his reputation did not depend alone upon his business talents and the courage with which he met the reverses of life, but also upon the noble qualities of his heart, his generous sympathies, his indignant scorn of every act of oppression, his charity for the poor and his open and hearty espousal of every good cause."

BENJAMIN PARKER ROGERS.

THE first American ancestor of the Rogers family was John Rogers, who appeared in Watertown, Mass., in 1639, and was a descendant of the martyr.

He removed to Billerica, Mass., about 1656 and died January 25, 1687. His first wife, Priscilla, died April 21, 1663, and he married second July 6, 1669, widow Elizabeth Brown, of Boston. Rev. Ezekiel Rogers, the first minister of Rowley, Mass., born in England in 1590, was the son of Richard Rogers, of Weathersfield, England, and in his will mentions his cousin Rogers of Billerica. Rev. Nathaniel Rogers, of Ipswich, son of Rev. John Rogers, of Dedham, England, was a descendant of the Prebendary of St. Paul, who suffered martyrdom in the reign of Queen Mary, and also mentions his cousin John.

John Rogers, son of John and Priscilla Rogers, was born in 1641 and was killed by the Indians August 5, 1695. He married Mary Shed, who died August 17, 1688. John Rogers, son of John and Mary (Shed) Rogers, was born December 13, 1680, and died July 7, 1736. His wife, Abigail, born in 1681, died January 9, 1754. Timothy Rogers, son of John and Abigail, was born November 30, 1717, and died February 6, 1796. He married first Rebecca French, who died September 15, 1750, having had three children, Timothy, Rebecca and Abigail; and, second, Ruth Parker, who was born October 2, 1729, and died December 15, 1800, having had nine children, Sarah, Benjamin, Philip, Betsey, David, Mary, Joel, Eri and Zadock.

Zadock Rogers, son of Timothy and Ruth (Parker) Rogers, was born in Tewksbury, Mass., May 8, 1774, and married December 5, 1805, Jemima, daughter of Ebenezer and Jemima (Hartwell) Cummings, of Woburn, Mass., who was born June 28, 1777. His children were: Zadock, born December 21, 1806, who died September 25, 1864; Joseph Porter, born May 8, 1809, who died April 30, 1870; Emily, born September 18, 1811, who died March 14, 1884; Benjamin Parker, born February 19, 1814, and Elizabeth, the only surviving member of the family, born May 7, 1819.

In the spring of the year of his marriage, Zadock Rogers bought a noted farm of about two hundred and fifty acres in that part of Tewksbury which was made a part of Lowell in 1834, and settled down to a farmer's life. For many years he was regular in his visits to Boston, carrying over the country roads in his own wagon the produce of his farm. After the settlement of Lowell he was the first to supply its people with the product of his dairy. His farm was situated on the old Boston road, lying on the Concord river, and overlooked the valley of the Merrimack. The old farm-house, standing when he bought the farm, was occupied by him many years, until it was replaced by a stately mansion, in which he died, February 16, 1844. His widow occupied it until her death, which occurred January 16, 1861. Mr. Rogers was a man of sterling character, showing an intelligence and skill in the management of his business, which, combined with industry and perseverance, secured to him the reward of abundant pecuniary means.

Benjamin Parker Rogers, the subject of this sketch, was the son of Zadock and Jemima (Cummings) Rogers, and was born in Tewksbury on the farm of his father, February 19, 1814. He was educated in the public schools of his native town, and remained an inmate of his father's family and an assistant on his farm until his father's death in 1844. For some years before that time, however, owing to the advanced years of his father, the management of the farm had practically devolved on him. There was no farm in Middlesex county containing a larger acreage, or yielding a larger product, and the care of such an establishment, with its larger crops of corn, potatoes, barley and oats, its more varied and critical yield of summer vegetables for the city market, its extensive dairy and numerous herds demanded the zeal and energy of youth as at least a supplement to the wisdom and prudence of age.

Mr. Rogers continued in the management of the farm until his death. He was not a typical New England farmer, but such a farmer as might be expected to be found occupying an estate within the limits of a growing city and contiguous to its thickening settlements. A good manager of men, each of whom had a department of his own to oversee and be responsible for, he found time to devote to those avocations which were congenial to his tastes. The welfare of the city of Lowell, the advancement of its highest interests, the cause of education, and the development of the religious life of the community he had at heart, and was always ready to aid in promoting. At his death the High Street and John Street Congregational Churches received liberal bequests, and will be permanent memorials of his devotional spirit and noble benevolence.

Mr. Rogers neither sought nor held public office, nor was the daily routine of his life punctuated in any way by the applause of his fellow-citizens. But the lives of such men deserve their record, as much as the lives of those who, with unsated ambition, are greedy for place and power among their fellowmen. The current of their lives flows on like some placid stream, without rapid or ripple, but nevertheless purifying the air, and giving new life and vigor to those who are fortunate enough to come within its influence.

"Let not ambition mock their useful toil,
Their homely joys and destiny obscure."

Mr. Rogers died at his home, May 21, 1866. After his death, his two sisters, Emily and Elizabeth, continued to live in the family mansion until the death of the former, March 14, 1884, finding their chief enjoyment in those acts of charity, and benevolence, and public spirit, which had formed so large a part of the life of their brother. They gave to the American Bible Society of New York the sum of \$50,000, and to the city of Lowell, through a board of trustees, about thirty acres of land, which, with the addition of other land bought by the city, form the Rogers Fort Hill Park. This park, on the old Boston Road, directly opposite the Rogers mansion, lies contiguous to that part of Lowell known as Belvedere, and commands pleasant views of the Merrimac river, before and after its entanglement with canals, constructed for purposes of water-power, and also of a wide expanse of diversified country.


Since the death of Miss Emily Rogers, her surviving sister, Elizabeth, built a house for her own occupancy immediately adjoining the mansion house lot, and in 1892 conveyed the older house to a board of trustees, for the purpose of founding an advanced school for girls, under the name of the Rogers Hall School. The house was remodeled, and adapted to the wants of a school, and dedicated to its destined use October 5, 1892. On the day after the dedication, the school was opened with



forty-eight pupils, which number was soon increased to fifty. The school is both a boarding and day school, the number of house-pupils being limited to sixteen, and the number of day-pupils to fifty. The school is under the immediate management of Mrs. Eliza P. Underhill, as principal, assisted by an efficient corps of instructors, and is intended to prepare girls for college, and to supply a thorough modern education to those not preparing for a collegiate course.

Miss Rogers, at the age of seventy-seven, is in the full enjoyment of all her faculties, and in her declining years she has the serene satisfaction of looking out from her home on the park and school, which are adding so much to the daily pleasure, and comfort, and the permanent welfare of the community of which she is a member.

JAMES WILLIAM BENNETT.

MONG the men of enterprise in the city of Lowell, there is none more active and conspicuous than the subject of this sketch. He illustrates in his character and career the true New Englander, a class of men noted the world over as types of the sturdiest qualities of manhood. Mentally and physically strong by nature, ambitious, energetic, persevering, fertile in resources, courageous in business operations, undaunted by difficulties, thoroughly honest and afraid of no man, he has made himself what he is universally acknowledged to be, a man to whom the community in which he lives looks for aid and influence. He is descended from worthy stock, his ancestors having been among those dauntless souls who braved the perils of the wilderness and helped to make New England what it is to-day.

The name of Bennett appears among those of the earliest settlers in this country. The common ancestor of that branch of the family which it is our purpose to trace was Samuel Bennett, a carpenter by occupation, who came from London to America in the ship "James," in 1635, only fifteen years after the landing of the Pilgrims from the "Mayflower," and settled in Lynn, Mass. He was a member of the ancient and honorable artillery, and a pine forest in the northern part of Lynn still retains the name of "Bennett's swamp." Mr. Bennett was a man of means and prominence in the town. He owned the first corn mill, and held large contracts from the iron works. By old records it is learned that in 1638 he was granted twenty acres of land by the town. April 17, 1653, he sold his corn mill to Thomas Wheeler for £220. In 1671, he sued Mr. John Gifford, agent of the iron works, and attached property for £400 for work performed for the company.

In 1675, Eliza Bennett, of Boston, is recorded as being a mariner. He afterward settled in Portsmouth, N. H., and from him the Bennetts in and around Newmarket are descended. Many of the name were representative men, and rendered important service to the country.

George Bennett, who was born about 1700, married Elizabeth Vaughn. She was a daughter of George Vaughn, lieutenant-governor of New Hampshire. Madam Bennett was a very learned lady, and was well versed in the Latin tongue. She translated into English one of the books of Virgil after she had passed her ninetieth year.

On June 14, 1747, a letter from Capt. Moses Bennett was read in the Provincial General Assembly at Portsmouth, relating to three French ships-of-war carrying one hundred and eighty guns landing cannon at the bay of Vert for the purpose of making an attack upon Annapolis. It was the purpose to build a fort opposite Goat Island and lay siege to the city with a force of five thousand men, French and Indians.

Capt. Bennett's information created quite a sensation in the assembly and was made a subject of legislation.

Captain Eleazer Bennett, of Durham, N. H., who died at the age of one hundred and one years and six months, was one of the company which captured Fort William and Mary in 1774. This event occurred six months before the battle of Lexington, and is recorded in the British annals as "the first action" of the rebels against British soldiery, preparatory to the war of the Revolution.

In the town records of Rockingham and Strafford counties the name of Bennett appears frequently. In 1753 Benjamin, Eleazer and Abraham Bennett, Jr., with others of Durham, petitioned the General Assembly for a grant of land in consequence of their having "endured the hardships of the late war," and their request was granted. In 1746 John Bennett petitioned for a bridge in place of a ferry between Stratham and New Durham, and Jeremiah Bennett opposed the project as an impediment to traffic on the stream. Benjamin Bennett, with others, petitioned for incorporation as a parish, to sit under the ministry of Rev. Hugh Adams, who was opposed by a faction of the town who desired to cast him off in his old age. In 1760 and 1764 the name of Bennett appeared upon petitions to the legislature to authorize public lotteries, one to build a bridge and another to build a road in Rye. The latter request was granted. Bennetts, even in those early days, were foremost in any project for public improvement. John Bennett was a selectman in New Durham in 1775, and in 1776 Moses Bennett, of Londonderry, was appointed justice of the peace for the county. In 1780 the General Assembly voted to John Bennett and another £115-16 for apprehending a deserter from the army.

The great-grandfather of the subject of this sketch was Josiah Bennett, who was born at Newmarket, N. H., August 4, 1753. His grandfather, James G. Bennett, was born at Newmarket, June 17, 1777. He was a farmer by occupation, and served in the navy in the War of 1812, under the command of Captain Perry. He married Betsey Hilton, January 27, 1800, and died at Newmarket September 11, 1844. His son, Nathaniel G. Bennett, was born on the farm in Newmarket, January 2, 1809, and married Sally L. Matthews. He followed the occupations of farmer and blacksmith, first in Newmarket and afterward in Stratham and Epping. He died in the last-named town May 6, 1893.

Col. James William Bennett is the son of Nathaniel G. Bennett, and was born in Newmarket, March 21, 1833. He attended the public schools of that town and of Epping until he was fourteen years of age, when he came to Lowell to learn the carpenter's trade with his uncle, Abram Matthews, an enterprising builder and contractor, whose place of business occupied the present site of the armory on Westford street. In those days young men wishing to acquire a trade were compelled to work from sunrise to sunset, leaving meagre opportunity for acquiring an education. Mr. Bennett attended the old Franklin School three months, but could not spare further time for that purpose. Fully realizing the value of that education of which he was deprived by circumstances, he laid by from his earnings a sufficient sum to enable him to receive two terms of tuition in a private school then kept by Mr. Thatcher in the Wentworth Block. He served an apprenticeship of six years with his uncle, and remained with him as a journeyman two years more, at the end of which time he was employed about one year by Willard Minot, in the manufacture of sash, doors and blinds. During the greater part of the year 1857 he worked for the Bleachery Company as journeyman carpenter. He was then employed for a short time by William H. Wiggin, then, as now, a large contractor. In March, 1858, Mr. Bennett formed a co-partnership with his uncle, Mr. Matthews, which continued only until



J. W. Bennett

the 11th day of August. His natural ability, his zeal and close application as an apprentice, the varied character of his work as a journeyman, his perfect health and strength, and his ambition to rise, prepared him for the highly-successful business career of nearly forty years upon which he then entered.

On August 12, 1858, Mr. Bennett started in business for himself at the corner of Middlesex and Howard streets. He remained here about two years, and then removed to the location he has ever since occupied at 564 Middlesex street. His business was that of a contractor and builder, and his reputation for thorough and conscientious work became so generally known that his business rapidly increased. In 1865 he added the laying of gravel-roofing to his line, and that has been an important factor in his work since that time. In 1881 he admitted to partnership his brother, George A. Bennett, and his son, Fred W. Bennett; and the firm became known as J. W. Bennett & Company.

Mr. Bennett is a large real-estate owner, and the buying and selling of such property during the past thirty years has been a large element in the prosperity which he now enjoys. He bought with excellent judgment in growing localities, with a firm faith in the future of the city, and sold under the most advantageous circumstances when values appreciated.

In politics Mr. Bennett is a loyal Republican, and has made his influence felt both in city and state affairs. Though he has never sought public office for himself, he has been constrained to accept the position of chairman of the Republican City Committee, which he held for two years, and for two years was a member of the Republican State Central Committee. In 1876 he was chosen to fill out the unexpired term of Edward Stockman in the Common Council, to which position he was re-elected in 1877. For seven years he was a member of the Board of Water Commissioners of Lowell, and his punctiliousness in regard to the duties of a public officer was well illustrated by an incident closely following his election to this office. He had been a dealer with whom the city had largely operated; but on the day after election, on coming to his office after breakfast, and seeing a number of articles placed on one side for delivery, he asked where they were going. When told that they were for the city, he said at once, "Put them back. I am now a trustee for the city, and I do not propose to be both buyer and seller." In 1879 and 1880 Mr. Bennett was a member of the legislature, and by his faithful service not only gained the confidence of his fellow-citizens, but made diligent use of the broader field to which he was introduced, in studying public affairs and becoming better acquainted with public men. During the administration of Governor Ames as governor of Massachusetts in 1887, Mr. Bennett was appointed a member of his staff, and thus acquired the title of colonel, by which he is now addressed. He was re-appointed, and served in the same capacity in 1888 and 1889.

In the fall of 1896, after having many times refused in previous years, Colonel Bennett allowed the use of his name to head the Republican ticket as candidate for mayor. To occupy the position would have meant a financial sacrifice, but the colonel was led to believe that he could render the city a service by introducing some of his business methods at city hall, and did not shrink from the duty to which he was called. He was defeated at the polls through the great popularity of the candidate of the opposing party and the machinations of an element in his own; but he received a vote of which any citizen might be proud, and was supported by conservative, patriotic, thinking people of all parties, who exercised their right of voting independently to an extent seldom witnessed. Colonel Bennett accepted the result philosophically, and congratulated his successful opponent. Had he been elected, the honor would have been to the office; the advantage to the citizens of Lowell.

Colonel Bennett has been actively interested in the financial institutions of Lowell. He is, and has been for many years, a director in the Wamesit National Bank, and a trustee of the Merrimack River Savings Bank. In other ways he has been active and earnest in the advancement of the material welfare of the city, and is looked to with confidence by the citizens for the furtherance of any enterprise for the city's good. It was largely through his energetic action that the Chelmsford street and Aiken street bridges were built, and he was largely instrumental in having the present sites of the Highland School, the Post Office and the State Armory selected, although in every case other sites were earnestly advocated by many. In every case the trend of business and population has justified his confident predictions as to the fitness of the sites chosen.

Colonel Bennett has been twice married, first to Nancy G. Fuller, in February, 1857, by whom he had one son, Frederick W., born September 1, 1859. His second marriage was in March, 1875, to Josephine A. Bassett, daughter of Jesse Bassett, of Lowell, by whom he has one daughter, Ethel, born in May, 1877.

Colonel Bennett is a domestic man, and takes great pleasure in the comforts of home. He occupies a spacious mansion with a large frontage on Branch street. In personal appearance Colonel Bennett is above the medium in height, of portly and commanding presence. His manner is genial and hearty to his friends, and his indomitable will, perseverance and energy, combined with his natural ability and his faithfulness to every trust reposed in him, have enabled him to win a high position among the business men of Lowell. As a citizen he has been foremost in the promotion of every worthy cause; as a public servant he has been zealous and fearless in the advocacy of all measures which his judgment approved as for the benefit of the city. His private and public career have been remarkably free from any mean or dishonorable acts, and it is thus that he has won and held the confidence and respect of his fellow-citizens. In the earlier days of his business career there were those who doubted his financial ability, but had their doubts speedily removed when the crisis came, by the prompt discharge of every obligation and the thorough integrity with which he met every duty devolving upon him. His business career has been one in which any man might well take pride. With meagre advantages in his youth, he has by a determination to make his every effort in life successful, and by the application of his mind to a specific purpose, overcome every obstacle, fought the battle of life successfully, and won an eminent and honorable position in his adopted city.

STEPHEN COLLINS.

THE subject of this sketch whose descendants occupy an esteemed position in New England history, was born in the county of Dublin, Ireland, June 24, 1811. He comes of a race dating back through centuries of honorable and distinguished existence in Great Britain, where the family is entitled to bear arms. The earliest ancestor traced came from England into Ireland with Oliver Cromwell in 1649, and settled in Kanturk and Dublin. James Collins, grandfather of Stephen, early evinced a desire to follow the sea, a career bitterly opposed by his family, possessed of large wealth and landed estates. He, however, persisted in pursuing his inclination through life, and, on his final return to Dublin in 1805, after the battle of Trafalgar, in which he served under Lord Nelson, he found himself dispossessed of his inheritance, and his brother in absolute possession of the large property to which in the opinion of his family he had forfeited all right, in following his inclination for



Stephen Collins

war and sea. By so distinguished a legal light as John Philpot Curran he was informed that with small effort on the part of the law, he could regain his heritage. Proceedings were about to commence, when on discovering the name of the defendant Mr. Curran found that he was about to bring action against a warm personal friend, and he felt obliged to decline the case. This caused what was to have been but a temporary delay; then came the death of James Collins and an extensive property was lost to a family too peace-loving, perhaps too indifferent to continue the dispute. About this time John Collins, son of Stephen, was engaged in the woolen manufacturing business in the suburbs of Dublin. In 1830 he decided to emigrate to America with his family, Stephen, the eldest son, being then nineteen years of age. They settled at Webster, Mass., where Stephen had charge of the dyeing, a capacity in which he acted later at Stafford Springs, Conn., Dudley, Oxford, Pittsfield and Worcester, Mass. In 1855, he with his father was able to buy a mill at Brattleboro, Vt., where they engaged for a time in the manufacture of satinetts. It was a time of hard financial straits, and after the year 1857 they closed out the business and returned to Worcester, where in 1860 occurred the death of John Collins.

In 1867 Stephen Collins associated with his two sons, Michael and John S., bought a mill in the town of Gilsum, N. H., and a partnership was created under the name of S. Collins & Sons. They added new machinery, improved the plant generally and began the manufacture of doeskins, beavers and tricots, with an annual product of about one hundred thousand dollars. In 1878 or thereabouts the partnership terminated. Mr. Stephen Collins retired from business, and the firm existed for a time under the title of Collins Bros.; later this partnership was dissolved,—Mr. J. S. Collins becoming sole proprietor, and Mr. Michael Collins going to Massachusetts, where he has founded the village known as Collinsville. On the retirement of Mr. Collins from active life he made his residence in Boston, but spent the long summer months in the congenial companionship of his sons, and so retained, to an extent, an interest in the life of the business world until his death, which occurred in Boston, February 20, 1886.

Mr. Collins was a man of great natural strength of character, and was early inspired by an ambition to seek a home in the new world, where he believed better opportunities could be found for a successful career. The determination of his father to come to New England gave hope and courage to his enterprising spirit, and no sooner had he landed on the shores of Massachusetts than he applied himself with resolution and vigor to the achievement of an honorable place in the ranks of New England's business men. Without boasting of his own personal success, he found the chief satisfaction of his pride in the career of his sons, who, under his guidance and instruction, passed safely through the besetting temptations of youth, and before his death were occupying responsible and honorable positions in the business world.

A young man of splendid proportion and superb physical strength, celebrated in the athletics of his day, his mental endowments were so strong and keen that with unerring instinct he seized upon the best in literature and science and early laid the foundation of a literary taste, which was the one recreation in later days of a busy life. Although a foreigner by birth, he had all the distinctive American interest in public affairs. Possessed of the finest sensibilities, his conscience was as keenly alive to public wrongs and dangerous tendencies as to his own private and personal conduct. From a worldly point of view, not a life of achievement, but a life that enriched and benefited every other life with which it came in contact, a nature absolutely unselfish, generous to a fault. To all who knew him, and therefore loved

him, his memory must recall the noblest and gentlest personality, all that constitutes the most essential human worth, the purest charm of character, the highest Christian manhood. The personal influences that ennoble one's surroundings may escape fame, but live immortal in the best part of other lives.

CHARLES EDWARD HAYWARD.

THERE is no town in the United States which has been so long and so extensively engaged in the manufacture of jewelry as Attleboro, Mass. Under that name it is intended to include the town of North Attleboro, which was set off and incorporated as a separate municipality in 1887. In the two towns there are nearly one hundred and fifty manufacturers of jewelry, if we include among the number twenty or thirty enamellers, engravers, chasers, refiners and makers of jewelry findings, all of whom are directly connected with the jewelry business. The number of persons employed in the industry is between four and five thousand, male and female, requiring an annual pay-roll of \$2,500,000, and turning out a product estimated at between \$8,000,000 and \$9,000,000. The jewelry business was introduced into the town by a French immigrant as early as 1780, and has been steadily increasing since that time, though the largest proportionate increase has been during the last quarter of a century.

Among the pioneers of the jewelry business in that part of the town, which is now known as Attleboro, was Charles Edward Hayward, the subject of this sketch. He was a member of a family, however, which had not been long resident in that town. His grandfather, Abraham Hayward, lived in Boston where he was known as the clerk of King's Chapel, in whose adjoining burial-ground he was buried. Abraham Hayward, son of the clerk, was born in Boston and followed the sea thirty years or more, serving as master of a privateer during the War of 1812. He finally removed to Attleboro, where he married Mariette Daggett, and had seven children. Charles Edward Hayward, one of these children, was born in that part of Attleboro, which is now North Attleboro, August 28, 1824. He attended the district schools of his native town, and at the age of seventeen was apprenticed to the jewelry manufacturing firm of Tift & Whiting, composed of Albert C. Tift and William D. Whiting, doing business in North Attleboro. At the age of twenty-two, having served his apprenticeship, he remained with the firm as a journeyman two or three years, and then for about the same length of time worked for himself. In 1851 he removed to the east part of the town, now Attleboro, and associated himself with Archibald Thompson, S. M. Lewis and S. N. Carpenter in the jewelry business, under the firm name of Thompson, Hayward & Co. In 1855, the firm having dissolved, he associated himself with his brother-in-law, Jonathan Briggs, under the firm-name of Hayward & Briggs. Though the earlier firm had been reasonably successful, the newer partnership may be said to have really marked the beginning of the career of Mr. Hayward as a manufacturer.

In 1859 the firm was burned out in the premises leased by them of the Steam Power Company, and after a further occupation of a new building erected by the company, the firm built, in 1873, the building now occupied by Hayward & Sweet, the successors of Hayward & Briggs. For many years the establishment of the firm was the largest in East Attleboro, and gave employment to one hundred and twenty-five hands. Their produce was a great variety of fine plated goods, in the manufacture of which only 18-karat gold was used, and in the production of these goods the



Charles E. Hayward

firm won a reputation, which their successors still enjoy. The goods were sold in New York under the direction of Mr. Briggs, while Mr. Hayward had entire supervision of the factory.

In June, 1885, the firm of Hayward & Briggs dissolved after a successful and honorable career of thirty years, and Walter Edward Hayward became associated with his father under the name of C. E. Hayward & Co. Mr. Hayward died May 4, 1886, and his son continued the business alone until 1887, when George L. Sweet became his partner in the present firm of Hayward & Sweet. The historian of Attleboro says that, "Hayward & Briggs trained a generation in the art of jewelry making, and the name will be remembered as a synonym of justice, honesty and probity in mercantile transactions in the annals of our great industry through many a coming generation."

Mr. Hayward had other business interests besides those connected with the manufacture of jewelry. He had great faith in the future growth of Attleboro, and engaged extensively in operations calculated to promote it. He invested largely in real estate, laid out streets and built houses, some of which were leased to tenants and others sold for permanent homes to the best class of persons in the town. He was vice-president and director in the First National Bank of Attleboro, and a director in the Attleboro Gas Company. Among the quasi-official associations were those with Orient Lodge, No. 107, and with the Royal Arcanum. His chief avocation, to which he turned in his hours of leisure for relief from the cares of business, was an interest in agricultural pursuits, stock raising and fruit growing, and in the welfare of the Attleboro Farmers' and Mechanics' Association, of which he was one of the founders, and for many years a trustee and president.

Mr. Hayward married June 14, 1854, Charlotte E., daughter of George and Eliza (Carter) Wheelwright, of Boston. His children were: Florence May, who married Joseph Lyman Sweet, of Attleboro; and Walter Edward, who married Margaret V. Lyon, of New York, and who is the senior member of the present firm of Hayward & Sweet.

Mr. Hayward was a Republican in political belief, though far from a politician or a seeker of public office. His religious associations were with the Universalist denomination, and he was a leader in the establishment of a church of that faith in East Attleboro. For a number of years he was a trustee of the Murray Universalist parish, and he was always liberal in its support. In the cause of temperance he was earnest and active, and indeed every movement to promote the moral, religious and intellectual welfare of the community, commanded his ready support. It has been said of him that "while professing very little religion, he practiced a great deal of it, and in a manner to win the regard of all Christians, Catholic as well as Protestant."

In the year before his death, Mr. Hayward spent some months in California seeking relief from asthma, which for some years had troubled him. On his way home he was taken alarmingly ill, and for only a short time survived his arrival. He died May 4, 1886, "the upright man, the kind friend, the valuable citizen, the devoted husband, the loving father, the consistent Christian." On the day of his funeral, business in the town was suspended during the ceremonies, and all the organizations of which he was a member followed him to his final resting-place in Woodlawn Cemetery. His widow, who had been an invalid many years, died August 17, 1892.

The Attleboro Farmers' and Mechanics' Association and the First National Bank passed resolutions paying deserved tributes to his memory. The employees of C. E. Hayward & Co. also passed resolutions expressive of their esteem of their employer, and declaring him "an individual friend, who was ever mindful of their

wants, ever ready to give advice and counsel when needed, and whose beloved hand was ever ready to lighten the burdens of life." The Grand Army Post, too, in whose welfare he had taken a deep interest, on the Memorial Day succeeding his death, played a dirge and dipped their colors while passing his late residence, in obedience to general orders issued by the commander. The limits of this sketch render it impracticable to quote at length the eulogies passed on the life and character of Mr. Hayward. The following words, written by one who knew him, will explain their purport and scope:

"In all respects he was a model man, and his death is universally regarded as the greatest personal loss his town could experience. In his death Attleboro loses one of its most prominent and exemplary citizens, a man of spotless integrity, fair and candid in his judgments, generous and charitable toward all. His death will fall heavily upon his bereaved family, the organizations with which he was connected, and heavily too in homes of poverty which his quiet and unobtrusive charity had oftentimes brightened. His influence will remain a constant reproof to the cheap ostentation and questionable business methods too prevalent in our times."

HON. GUY RAY PELTON.

GUY RAY PELTON was born at Great Barrington, Mass., on the 3d of August, 1824. He was the second child of Joseph H. Pelton and Harriet Ray Pelton. His ancestors had settled in Connecticut in 1630, and in 1801 his grandfather moved to Great Barrington, purchasing an estate now known as "Meadowbrook Farm," at the foot of Monument Mountain. That estate has remained in the possession of the family from that time to the present. There Guy Ray Pelton was born. His father was noted for industry, sound judgment and strict integrity; his mother, for the strength and sweetness of her character. Their home was an ideal New England home, and its influence was a controlling factor in Guy Pelton's life. He never lost his love for his home, and each year, during an extremely active and busy life, spent some time in Great Barrington, keeping in touch with the old friends and the old associations.

He was educated at the public schools in Great Barrington, at Sedgwick Institute (a noted school at that time), and at Oberlin College. He studied law, and upon his admission to the bar opened a law office in New York city. Applying himself with great industry to his profession, he at once came to the front. He became actively interested in politics, and was one of those who laid the foundations of the Republican party. He was one of the earliest members of the Union League Club. In 1857 he was elected a member of the Thirty-fourth Congress from the district comprising the lower wards of the city—a district largely Democratic. He served upon the committee on commerce—his congressional career being marked by brilliancy and activity. He was urged to accept a renomination, but declined.

Returning to New York he again gave his attention to a constantly increasing law practice. On February 20, 1859, he was married to Mary Childs Franklin, who died ten years later, leaving one son, Mr. Franklin D. Pelton, now residing in New York city.

About 1857 a partnership was formed with his brother, Timothy Dwight Pelton (a man of fine scholarship and remarkable legal attainments), under the firm name of G. R. & T. D. Pelton. The brothers were strongly attached to each other, and the partnership lasted until the death of Mr. T. D. Pelton in 1879. They were recog-



Guy R Pelton



Charles A. Welch

nized as among the leaders of the New York Bar, and their business yielded a large income. They had a high sense of professional honor, and were entrusted with the management of some of the most important causes tried before the New York courts during this period.

While he never sought a renomination for Congress, yet he always retained an active interest in the Republican party, and did much to shape its policy in state and nation. He held numerous positions of trust, and was frequently appointed by the courts on important commissions.

Mr. Pelton was pre-eminently a lawyer, but this sketch would not be complete without some mention of him as a business man. One of his most marked characteristics was great executive ability. He was connected at different times with various business ventures, the most important, perhaps, being the reorganization and development of the Gutta Percha and Rubber Manufacturing Company of New York.

On January 21, 1879, at Washington, D. C., he was married to Angelina S. Scoville, daughter of Samuel C. Scoville, a prominent citizen of Saugsbury, Conn. The Scoville family have been prominently identified with Litchfield County for several generations. During the later years of his life Mr. Pelton indulged in his fondness for travel. Accompanied by Mrs. Pelton he traveled extensively in this country and abroad. They were both enthusiastic and intelligent travelers, and these happy years added to an already broad and ripe culture. In 1890 they visited Alaska. The trip was delightful. Mr. Pelton was never in better spirits or apparently in better health. On their return, while visiting the National Yellowstone Park, without an instant's warning, without pain or struggle, his life suddenly came to an end on July 24, 1890—death being caused by over-exertion in those high altitudes. His devoted wife brought him to Great Barrington, where funeral services were held in the Congregational Church, and he was laid to rest in Mahaiwe Cemetery in the beautiful Berkshire land he loved so well.

His personal appearance was striking. He was almost six feet in height—a commanding figure. A large, well-shaped head was thickly covered with gray hair. His eyes were black and keen, and his features full and regular. There was that in his manly countenance, in his appearance and bearing, which inspired respect.

He was a very social man—genial by temperament—and a most delightful personal companion. He was a fluent talker, generous and impulsive, of ready wit and quick at repartee. Joined with strong intellectual powers were rare courage and tremendous energy. Nothing could dishearten him, and he often triumphed through sheer persistency. If there was in his character one element which stood forth with special prominence and could be pointed out as a marked characteristic of his life, it was his *rugged honesty*. He kept his word, he scrupulously fulfilled every agreement; all his life through there was no taint of dishonor.

CHARLES ALFRED WELCH.

JOHN WELCH, the first American ancestor of the family, to which the subject of this sketch belongs, came from England probably about the middle of the seventeenth century, and lived in Boston. He married Elizabeth, daughter of John White, of Boston, and died in the early part of 1714. His son, John, was born in Boston, July 22, 1682, and married January 23, 1706, Hannah, daughter of Thomas Phillips. John Welch, son of the last John, was born in Boston, August 11, 1711, and died there February 9, 1789. He married, first, Sarah Barrington, who died in

1736, and, second, October 29, 1741, Dorcas, daughter of Francis Gatcomb. Francis Welch, son of the last John, was born in Boston in 1744, and died in London, December 7, 1790. He married Susannah, daughter of Benjamin and Susannah (Noyes) Renkin. Francis Welch, son of the above Francis, was born in Boston, August 30, 1776, and married, October 4, 1803, Margaret (Crease), daughter of William Stackpole, of Boston. For many years he was president of the Franklin Insurance Company, of Boston. He was a handsome man with courtly manners, whose personal bearing testified to the culture and refinement inherited from a gentle ancestry. Francis Welch was the father of the subject of this sketch. Another of his sons, Edward Holker Welch, graduated at Harvard in 1840, and became professor of history and of other studies from time to time in Georgetown College. Still another son, Francis Welch, bred at a time when it was the custom for one or more of a merchant's sons to follow the sea, became a successful shipmaster, and a daughter, Caroline Maria, married Edward Augustus Crowninshield, a graduate at Harvard, a member of the Boston bar and a distinguished bibliographer, who was a descendant of Johann Kaspar Richter von Kronenschild, who came from Saxony to New England in or about 1686.

Charles Alfred Welch, son of Francis and Margaret Crease (Stackpole) Welch, was born in Boston, January 30, 1815, and graduated at Harvard in 1833 in the class of which Professor Francis Bowen, Rev. Dr. George E. Ellis, Abiel Abbot Lawrence, Prof. Joseph Lovering, Prof. Henry W. Torrey, William Whiting and Prof. Jeffries Wyman were also members. Among these men who won high positions in after-life he held good rank. He studied law in the office of Sprague & Gray in Boston, and was admitted to the Suffolk bar in the fall of 1837. After practising alone a short time, he formed a partnership with Edward Dexter Sohier in March, 1838, which continued fifty years and eight months, until the death of Mr. Sohier November 23, 1888. It is probable that no more than two other law firms in Massachusetts have survived fifty years. Charles Theodore Russell took his brother, Thomas Hastings Russell, as a partner in 1845, and died in 1896, and Henry Clinton Hutchins and Alexander Strong Wheeler formed a partnership in 1844, which continued until the death of Mr. Hutchins in 1895.

The firm of Sohier & Welch early became one of the leading law firms in Boston, and enjoyed a large practice, both on the civil and criminal side of the courts. Trustworthy in the highest degree, both as to their professional ability and their impregnable integrity, they found a large share of their clients in the best class of Boston merchants. As trustees, their conservative judgment attracted to their care estates of large proportions, requiring unremitting activity and unbounded skill. Mr. Sohier was the junior counsel with Pliny Merrick in the defense of Dr. John W. Webster for the murder of Dr. Parkman, and the writer, who was present through the trial, remembers well his assiduity and skill in making the most of the material available to save his client. The Massachusetts reports contain abundant evidence of the extent and character of the business of the firm of Sohier & Welch during its honorable career.

Mr. Welch married in August, 1844, Mary Love, daughter of Kirk Boott, of Lowell. The career of the father of Mrs. Welch is well worthy of mention. Born in Boston in 1790, seven years after the migration of his father from England, he was educated in Boston and at the famous Rugby School in England. Entering Harvard in 1805, he left college, and, going to England, was commissioned Lieutenant in the Eighty-fifth Infantry, and served through the Peninsula Campaign with Wellington. When his regiment was ordered to America during the war of 1812, he



W. D. Wentz.

resigned his commission, and soon after, returning to Boston, was appointed agent of the Merrimack Mills in Lowell in 1822, and died in 1837.

At the age of seventy-five Mr. Welch suffered a fracture of the neck of the thigh bone, from which, contrary to the expectations of his friends, he has completely recovered; and, with the exception of a lameness necessarily incident to such an accident, he is now, at the age of eighty-one, enjoying good bodily health and an unimpaired mental strength fully equal to the multiplicity of his business cares.

HENRY DRESSER MERRITT.

IN the town of Charlton, Worcester county, Mass., Lewis Merritt lived in the early part of the present century. He was a small farmer, and could not expect, at a distance from markets for his produce, accessible only by his own transportation, to do more than supply his own wants by the cultivation of the soil. The introduction of railroads was then in the distant future, and, seeing no hope of bettering his condition on the farm, he removed to Hartland, Vt., and there, on the line of northern travel to and from Boston, became the proprietor of an inn. In those days an innkeeper was, in the small towns of New England, next to the minister and the squire, the man of importance and influence. Indeed, perhaps more than the minister and squire, the publican was consulted as to the management of local affairs. He had married in Charlton, Clara Hammond, and husband and wife spent the remainder of their lives as master and mistress of the Hartland Inn.

Henry Dresser Merritt, the subject of this sketch, was the son of Lewis and Clara (Hammond) Merritt, and was born in Charlton, January 16, 1826. Early in his youth his father removed to Hartland, and he received his education in the public schools of that town. At the age of eighteen, he went to Boston to learn the tailor's trade, but not long after, abandoning the plan of adopting that occupation, removed to North Attleboro, Mass., and became a clerk in the jewelry establishment of H. M. Richards, then a prosperous and wealthy manufacturer. At a later time he was placed in charge of the New York house of Mr. Richards. In 1853, when Henry F. Barrows began the manufacture of jewelry, at Attleboro Falls, Mr. Merritt was engaged by him to act as his salesman in New York.

In 1854, he became a jewelry manufacturer on his own account, and associated with himself Joseph B. Draper, under the firm-name of Merritt & Draper. The firm established themselves in North Attleboro, but after a few years removed their business to Mansfield, Mass. Mr. Merritt continued in the active management of the business, both at home and in New York, until Mr. Draper retired. In 1870, he formed a partnership with John Shepardson, under the firm-name of H. D. Merritt & Co., and in 1872 the business of the firm was removed from Mansfield to North Attleboro. As, during the existence of the old firm, so under the new, Mr. Merritt kept the control of the New York business in his own hands, and spent much of his time in that city. In fact, for most of the time until 1874, New York was his place of residence. In that year he bought of Edmund I. Richards a house in North Attleboro, built by Charles T. Draper, and made it his home. His business in New York, however, required frequent visits to that city, during one of which he died at the house of a friend in Twentieth street, January 20, 1878.

At the death of Mr. Merritt, his interest in the firm of H. D. Merritt & Co. passed into the hands of his widow, and the firm continued until June, 1893, when Mrs. Merritt bought out Mr. Shepardson's interest. On the 25th of March, 1895, Mrs. Mer-

ritt conveyed to Louis E. Morse, the foreman of the establishment, one-third interest in the concern, and, about the same time, one-third to her nephew, William W. Sherman, retaining, herself, one-third, thus making the firm of H. D. Merritt & Co. consist at the present time of Mrs. Merritt, Mr. Morse, and Mr. Sherman. The factory of the firm is located on Ten-mile River, in North Attleboro, and gives employment to about seventy-five hands. The goods manufactured are gold and silver chains and are sold all over the country.

As a business man Mr. Merritt was eminently successful. A high ambition, good habits, untiring industry and strict integrity were the forces which carried him through a career beginning as a poor man's son in Hartland, Vt., and ending as a rich manufacturer in Attleboro. Possessing the confidence and respect of the entire community, quiet and unassuming in his manners, he preserved that strength and force of character which are more potent than the bustling energy which is so often brilliant for a day and a cause of failure on the morrow.

Mr. Merritt married, November 26, 1860, Marietta, daughter of Warren and Harriet (Tisdale) Aldrich, of North Attleboro, an accomplished woman, who re-inforced the business sagacity and enterprise of her husband while he lived, and who, since his death, has exhibited rare executive ability and skill as the head of the firm of H. D. Merritt & Co. Mr. Merritt had two children: Clara Richards, born September 11, 1872, who married Horace P. Kent, a native of Portsmouth, N. H., and Henry Dresser, born April 26, 1874.

In his political affiliations Mr. Merritt was a Republican, and his religious associations were with the Universalists. As a manufacturer he believed that the protective policy of the Republican party best subserved the interests of the country, but the absorbing nature of his business forbade any special activity in political affairs. Confining himself to the management of the enterprise which he had started and built up, and devoting his hours of leisure to the happiness and comfort of his family and home, he was content that others should run the political race and either win its honors or suffer its defeats.

ORLANDO W. NORCROSS.

FEW builders and contractors in the United States have attained more eminence than the firm composed of James A. and Orlando W. Norcross, and bearing the name of Norcross Brothers. It is probable that the variety and extent of work performed by them exceeds those of any other firm within the limits of our country. There are few northern cities of large population in which examples of their work may not be seen in their most costly and imposing structures. It is difficult to realize that during the short period allotted to human life in its full vigor, so much could have been done. Hand in hand with the most accomplished architects of our day, they have gone from city to city, and, as if by magic, reared pile after pile of brick and stone, to stand not only as triumphs of art, but also as monuments to their industry and skill.

Jesse S. Norcross, the father of Mr. Norcross, was born in Wayne, Kennebec county, in the state of Maine, and was a millwright by trade. He carried on his business at various times in his native town, in Clinton, Bangor and Oldtown, and in 1843 removed to Salem, Mass. He married Margaret Whitney, of Westboro, Mass., and died in Benicia, Cal., in 1850.



Turner's

Orlando W. Norcross, son of Jesse S. and Margaret (Whitney) Norcross, was born in Clinton, Me., October 25, 1839, and was four years of age when his father removed to Salem. He was educated in the public schools of Salem, and, after leaving school, worked in the leather business in the employ of James C. Stimpson, of that city. He then learned the carpenter's trade, and was engaged in that occupation until the beginning of the war. As a member of the Salem Cadets, his military spirit was sufficiently aroused to induce him to enlist in 1861 as a private in the Fourteenth Regiment of Massachusetts Infantry, which was changed to the First Massachusetts Heavy Artillery. After a service of three years he returned to Salem and, associated with his brother, carried on the carpenter's business in that city till 1866. In 1867 the firm took a contract to build the Congregational church in Leicester, Mass., and another the next year to build the Congregational church in North Adams, in the same state. In 1868 the firm of Norcross Brothers removed to Worcester, and since that time the two brothers have made that city their place of business and their home. Since their establishment in Worcester their career has been one of uninterrupted prosperity and success. The promptness and fidelity with which their contracts were carried out soon gave them a reputation which extended rapidly beyond the field of their earlier operations, until a score of the states of the Union contain at the present time prominent examples of their work. The following is a partial list of buildings erected by them, with the estimated cost of each, the whole amounting to more than thirty millions of dollars:

Hampden County Court House, Springfield, Mass.....	\$175,000	Residence of Annie W. Sherman, New- port	40,000
Woburn Library.....	80,000	Boston, Residence of Oliver Ames.....	68,000
Ames Library, North Easton, Mass....	36,000	Boston, Residence of C. A. Whittier..	107,000
Crane Memorial Library, Quincy, Mass.....	44,000	Residence of Grange Sard, Jr., Albany. Block for Union Theological Seminary, New York.....	32,000 60,000
Albany City Hall, Albany, N. Y.....	295,000	Brownlow Hall, Wellesley, Mass	60,000
Allegheny County Court House and Jail, Pittsburg, Pa.....	2,500,000	Agassiz Laboratory, Harvard College.	95,000
Cincinnati Chamber of Commerce.....	570,000	Residence of B. H. Warder, Washing- ton, D. C.....	112,000
Howard Memorial Library, New Orleans.....	98,000	Great Barrington, "Kellogg Terrace."¹	600,000
Malden Library.....	90,000	Boston, John F. Andrew's Residence..	140,000
Union R. R. Station, Hartford, Conn.	220,000	C. C. Converse, Boston, Mass., Resi- dence.....	55,000
B. & A. R. R. Station, Springfield, Mass.....	420,000	Residence of John E. Thayer, South Lancaster.....	85,000
Stone R. R. Bridge, Springfield, Mass.	120,000	Residence of J. J. Glessner, Chicago... Dedham, Mass., Residence of A. W. Nickerson.....	85,000 175,000
Stations for N. Y. C. & H. R. R. R. Co. at Irvington, Riverdale and Dobbs Ferry, N. Y.....	40,000	Springfield, O., Residence of A. S. Bushnell.....	90,000
Exchange Building, Boston.....	1,600,000	Cambridge, Mass., Residence of Ed- win H. Abbott.....	100,000
Ames Washington Street Building, Boston.....	625,000	Worcester High School.	120,000
Ames Lincoln Street Building, Boston.	280,000	Latin High School, Boston.....	170,000
New London, Conn., New London Public Library.....	60,000	Harvard College Gymnasium.....	91,000
Springfield, O., Warder Public Library	60,000	Harvard College Law School.....	136,000
Union League Club House, New York City.....	255,000	Harvard College, Sever Hall.....	104,000
Boston Art Club House.....	54,000	Harvard College, Perkins Hall.....	180,000
Algonquin Club House, Boston.....	220,000	Harvard College, Conant Hall.....	120,000

Harvard College, Fogg Art Museum..	150,000	St. James' Episcopal Church, New York City.....	130,000
Union Theological Seminary, New York City.....	286,000	Newton Baptist Church, Newton, Mass.....	43,000
Vermont University, Burlington, Vt.....	92,000	Ames Memorial Monument, Sherman, Wyoming.....	62,000
Lawrenceville School, New Jersey.....	320,000	College for Teachers, New York City, Bank Building for Norwich Sav. Soc., Norwich, Conn.....	409,000
Durfee High School, Fall River, Mass..	200,000	Hartford Society for Savings Building, Hartford, Conn.....	80,000
Crouse Memorial College, Syracuse, N. Y.....	220,000	Industrial Building, Providence, R. I., Telephone Building, Providence, R. I., Dormitory Building at Princeton College.....	120,000
Osborn Memorial Hall, Yale College..	150,000	Commencement Hall at Princeton College.....	88,000
New London, Conn., Williams Memorial Institute.....	40,000	New England Building, Cleveland....	227,000
Crompton's Block, Worcester.....	75,000	Banigan Building, Providence.....	600,000
Cheney Block, Hartford, Conn.....	337,000	Tremont Building, Boston.....	900,000
Ames Warehouse, Boston.....	133,000	State Mutual Bldg., Worcester, Mass.	1,200,000
Turner Building, St. Louis, Mo.....	208,000	Devonshire Building, Boston.....	900,000
Marshall Field Building, Chicago.....	900,000	Corcoran Gallery of Art, Washington, D. C.....	320,000
New York Life Insurance Building, Omaha.....	750,000	Columbia College Library, New York City.....	500,000
New York Life Insurance Building, Kansas City.....	850,000	Natural Science Building, Columbia College.....	1,000,000
Burnside Building, Worcester.....	92,000	Physics Building, Columbia College..	400,000
Lionberger Building, St. Louis, Mo...	275,000	Residence of Mrs. Elliott F. Shepard, Scarborough, N. Y.....	300,000
Youth's Companion Building, Boston	450,000	Rhode Island State Capital.....	600,000
Bloomington Insane Asylum, White Plains, N. Y.....	1,400,000	Massachusetts State House Extension.....	1,700,000
Holy Trinity Church, New York City	188,000	Lauderdale Building, Providence.....	2,000,000
St. John's Episcopal Church, New York City.....	412,000	Francis Building, Providence.....	100,000
First Universalist Church, Worcester,	30,000	Residence of H. McK. Twombly, Madison, N. J.....	100,000
South Congregational Church, Springfield, Mass.....	150,000	Brookline High School.....	400,000
Trinity Church, Boston.....	390,000	City Hall, Worcester.....	200,000
Norwich Congregational Church.....	90,000		600,000
All Saints' Church, Worcester.....	95,000		
Trinity Church Parsonage, Boston.....	28,000		
Winthrop Congregational Church, Holbrook.....	22,000		
Grace Church, New Bedford, Mass....	40,000		
Presbyterian Church, Albany, N. Y....	80,000		
First Spiritual Temple, Boston.....	120,000		

So great confidence is placed in his judgment that, when the Federal Building in Chicago was thought to be unsafe, Mr. Norcross was appointed one of a committee to investigate and report on its condition. It is unnecessary, perhaps, to say that no structural weakness has ever been discovered or suspected in their own erections, and so great is the reliance placed on their faithfulness and skill, that time and opportunity furnish the only limit to their operations.

It may be readily seen that a man, whose days and hours are only too brief for the work which he is able to execute, has no time to give to political affairs. It is safe to say that no political office could tempt him with its emoluments and honors, and the only positions of trust which he has been willing to accept, are those of a director in the First National Bank, of Worcester, and of a director in the State Mutual Life Assurance Company in that city.

Mr. Norcross married May 17, 1870, Ellen P., daughter of George Sibley, of



Wm. A. Burns

Salem, and has three children, Alice Whitney, Mabel Ellen, and Edith Janette. He is in the full vigor of manhood, with the prospect before him of many years of activity and usefulness.

WILLIAM HENRY BURNS.

MR. BURNS is descended from a Scotch ancestor, John Burns, who came to Massachusetts in 1642 and settled in Haverhill. He is the son of James and Catharine (Marston) Burns, was one of five children, and was born in Charlestown, Mass., June 22, 1856. In his early infancy his father removed to Somerville, Mass., where he attended the public schools until he was eleven years of age. In 1867 he went to Lowell to live with a cousin of his father and attended the Lowell grammar and high schools. His mother died in 1869 and his father two years later. At the age of fourteen he entered the employ of Asa Clement, a farmer in Dracut, receiving as compensation his board and clothing, but enjoying the privilege of attending school during the winter months. At the age of fifteen he received four dollars a month additional, and at the age of sixteen fifteen dollars per month. With the slender means thus acquired, he attended the school of Bryant & Stratton nine months, and then entered the state normal school in Bridgewater, Mass., where he remained three years. He pursued his studies with the view of adopting the vocation of teacher, and, after leaving Bridgewater, he went to Spencer, Mass., with a capital of three dollars and twenty-five cents in his pocket, and there taught a district school in the winter of 1878-79 and afterwards the grammar school in that town until 1881.

The occupation of teaching proving uncongenial to his tastes and promising only scanty remuneration, he determined to enter on a business career. His first employment was as a traveling salesman for the American Underwear Company, and for two years and a half he followed this pursuit. Having acquired an insight into the business, he associated himself with John S. Baker, who had been a companion on the road, and under the firm-name of Baker & Burns, started in a small way an underwear factory in Worcester. They hired premises on Front street containing about four thousand feet of flooring, and for nine months the firm fought for a foothold in a field occupied by well-established and wealthy competitors. In 1884 the firm was dissolved, and until 1887 Mr. Burns continued the business alone under the name of William H. Burns & Co. During the three years from 1884 to 1887 the business of the firm was established on a permanent foundation. Additional room had been hired, increasing the floor space from four thousand to twenty-eight thousand feet, and the product of the factory called for the cutting annually of two million yards of cloth and several million yards of lace and embroidery. In 1887 Harry S. Green, a brother-in-law of Mr. Burns, acquired an interest in the business, and two years later, in order to meet the increasing demand for accommodations, Mr. Burns built the stone and brick building on Park street, which he now occupies. This building is five stories high, the four upper stories, with more than fifty thousand square feet of floor space, being devoted to the business, and the ground floor, containing three stores of ample dimensions, occupied by business firms. About six hundred hands are employed, and about three and a half million yards of cloth are cut annually to meet the demands of the trade. The cloth is manufactured for the concern and the lace and embroidery used are imported by Mr. Burns. The manufactured product, which is the underwear of women and children, amounts to about six thousand pieces per day, and is sold through-

out the United States, and offices have been established in Boston, New York and Chicago with salesagents in each. In 1893 the firm of William H. Burns & Company was incorporated under the name of the William H. Burns Company, and Mr. Burns is both president and treasurer. During the recent business depression the company continued its operations, and though a considerable stock was accumulated, it soon disappeared under the brighter business sky which followed.

Mr. Burns, in his religious affiliations, is a Trinitarian, and in his political, a Republican; but outside of his business as a manufacturer, he has no entangling alliances, and has accepted no office, except that of a member of common council of Worcester in 1893-94, and though urged to go into the Board of Aldermen the following year, declined, to devote his undivided time to his business.

He married, November 21, 1882, Annie F., daughter of Henry R. Green, of Spencer, Mass., and has four sons, Arthur Henry, William Russell, Randall Green, and Ernest Clement.

The career of Mr. Burns, of whom this imperfect sketch has been written, indicates the character of the man. To establish on solid foundations and to build up the enterprise under his management requires traits rarely found in the walks of every-day life. A sound body, a sound mind, and both cultivated and trained; a determined will, habits of industry and thrift, rigid economy, a knowledge of human nature, an unruffled temper, and with all unswerving integrity, are all possessed by Mr. Burns and have been the means of his brilliant success.

GEORGE FLETCHER WRIGHT.

MR. WRIGHT is the son of Ephraim and Asenath Wright, and was born in Westford, Mass., July 25, 1831. He was educated in the public schools of his native town and at the Westford Academy. He was, early in life, thrown on his own resources, and having a decided mechanical ingenuity and taste, which ripened later into an inventive faculty, he learned the trade of cabinet-maker. No department of work in wood demands more faithful application or better workmanship than that in which he sought to make a start in his career. Having worked some years at his chosen trade and further developed his mechanical ability, he went to Harvard, Mass., and engaged in the manufacture of horse-powers as a member at various times of the firms of Burt, Wright & Co., and A. & G. F. Wright. In 1861 he was working again at his trade, but in 1862 went to Clinton, Mass., where he was employed twenty years by the Clinton Wire Cloth Company, a company organized in 1856 by Charles H. Waters and H. N. Bigelow, and first equipped with looms invented by Erastus B. Bigelow. Mr. Wright was first employed as a machinist, afterwards foreman, and later as master-mechanic and draughtsman. While connected with this company he took out many patents, among which were looms and shuttles for weaving wire cloth, a process and machinery for painting window-screen wire cloth, a flexible paint roll for painting wire cloth by which hundreds of millions of feet of cloth have been painted during the past twenty years, and the first paper-box covering machinery patented in this country. Many of his inventions were utilized successfully by the Clinton Wire Cloth Company with which he was connected, and the growth and prosperity of that company was largely due to his ingenuity and skill. Among his other inventions were wire-netting machines, and fire-proof columns for buildings.



Geo. F. Nicht



W. L. Ginn

In 1882, Mr. Wright, with his two sons, George M. Wright and Herbert N. Wright, and others, started the business of manufacturing wire cloth in Palmer, Mass., which was continued a year under the name of the Palmer Wire Goods Co. In 1884 Mr. Wright and his sons bought out their partners in the enterprise, and organized in Palmer the Wright Wire Cloth Company with a capital of \$20,000. The officers of this company at the present time are George F. Wright, president and treasurer; George M. Wright, general manager and Herbert N. Wright, superintendent. In 1889 this company was merged into the present company under the name of Wright & Colton Wire Cloth Co., and the business removed to Worcester, into one of its present buildings, where preparations were made for enlarging the business.

In December, 1889, the annual product of the company had grown to \$75,000, and the capital was increased to \$50,000. After its removal the company steadily increased its business, and from year to year new buildings were erected, new machinery added, increased power put in until a triangular lot of land one and a half acres in extent between the Boston and Albany, and New England railroads, and facing Hammond St., is nearly covered with new modern brick buildings from one to four stories in height. In 1895 the capital was increased to \$100,000, and the wire mills formerly belonging to the Palmer Wire Manufacturing Company at Palmer, Mass., were bought and equipped with new machinery for the manufacture of wire. The products of the company consist of poultry netting, wire cloth and wire fencing, glue drying wire netting, coal screens, steel spark arrestors, wire lathing, and riddles for various uses, wood screws and rivets, in all of which several thousand tons are annually manufactured; button wire, mattress and bed wire, copper, galvanized and tinned wire, and wire goods of various kinds, the value of the whole annual product amounting to nearly a third of a million dollars and keeping from one hundred and seventy-five to two hundred and fifty hands employed. Many of these goods and the machinery producing them are inventions of Mr. Wright, and while their markets are scattered throughout our own country, not a few of the goods reach markets in the old world and South American countries.

The company owns many valuable patents on its machinery, builds its own machinery in its own machine shop, and makes all the wire which it weaves and cuts up into goods and a large quantity for sale. The power plant of the company consists of two engines with five boilers, a total of eight hundred horse-power, and its works are equipped with electric lights and their accompanying apparatus and dynamos. The floor space of both plants covers about three acres, and four different railroads have sidings to the doors of both factories, giving them superior facilities for transportation.

Mr. Wright married September 13, 1860, Harriet Elizabeth, daughter of Ezekiel C. and Susan S. Wright, of Littleton, Mass., and has had the two sons before mentioned, George M., born April 12, 1865, and Herbert N., born March 13, 1867.

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WILLIAM DAGGETT EARL.

WILLIAM DAGGETT EARL is probably descended from Ralph Earl, who settled in Newport, Rhode Island, in 1634, and died in Portsmouth, Rhode Island, in 1678. He is the son of William Henry and Maria (Daggett) Earl, and was born August 5, 1830, in that part of Attleboro, Mass., which was incorporated as North Attleboro, June 14, 1887.

Through his mother he is descended from Thomas and Hannah (Mayhew) Daggett, of Martha's Vineyard, among whose other descendants were the late Hon. John Daggett, of Attleboro, and Hon. David Daggett, a native of Attleboro, who graduated at Yale in 1783, and became successively a tutor at Yale, representative in 1791, speaker of the Connecticut House of Representatives in 1794, state senator from 1797 to 1804, United States senator in 1813, Kent professor of law at Yale in 1826, judge of the Superior Court of Connecticut in the same year, and chief justice in 1832.

Mr. Earl attended the district schools of his native town and the North Attleboro Academy, where he was a fellow-student with the late ex-governor Oliver Ames, of North Easton, Mass. In 1848 he entered the Norwich University, in Norwich, Vermont, where he spent a year, leaving that institution at nineteen years of age. After leaving the university he entered the employ of Whitney & Davenport, manufacturers of jewelry in North Attleboro, and afterwards the employ of H. M. Richards, who was engaged in the same business in that town. In 1857 he became associated with his brother, Thomas A. Earl, and John Ferguson, under the firm-name of Earl, Ferguson & Co., and for two years carried on the jewelry business in his native town. Retiring from the firm in the autumn of 1858, he was chosen representative from Attleboro, and served during the session of 1859. At the close of the session he entered the employ of H. F. Barrows, an extensive jewelry manufacturer in North Attleboro, and remained with him until the autumn of 1861, when he was again chosen representative to the legislature of 1862. After the adjournment of the General Court he was appointed an inspector in the Springfield Armory, and served in that capacity about two and a-half years. After leaving the armory he moved to Boston, and again found occupation with his old employer, H. M. Richards, who had transferred his manufacture of jewelry to that city. At the end of three years he became associated with M. W. Carr, under the firm-name of M. W. Carr & Co., and carried on in Boston for two years the business in which he had so long served his apprenticeship. In 1870 he finally removed to Leominster, Mass., and in company with his brother, Thomas A. Earl, under the firm-name of William D. Earl & Co., entered into the manufacture of combs and other kindred products of horn, for which that town has for many years been distinguished. This department of industry was introduced into Leominster from West Newbury, Mass., in 1775, and began at that time in the kitchen of Obadiah Hills, whose house is still standing. Mr. Hills was followed by Joseph Tenney, John Chase and Edward Love, all from West Newbury, and other citizens of Leominster, who foresaw the profitable character of the business. For some years the manufacture was carried on wholly by hand. Tools for the manufacture of horns were first devised by John Buzzell, but the first screw-press was invented by McPherson Smith, who secretly constructed his model in a hut in the woods of Ashby, and, securing a patent, wholly displaced by his press the old wedge-press, which had been before in universal use. The infant enterprise of Obadiah Hills, cradled in his kitchen, has now become a leading industry in Leominster, converting the horn not only into combs of the commoner sort, but the more expensive fancy back combs, horn jewelry, hair-pins and buttons. Among the many establishments in Leominster engaged in the industry, that of William D. Earl & Co., established in 1870, is one of the most prominent. The horns used are those of steers, and wherever they can be obtained, whether in the western states of the Union, or in Mexico, or Cuba, or the states of South America, they find their way to the store-houses of the manufacturer, and are transferred from their original use as weapons of offense and defense on the heads of roaming herds, to that of ornament and beauty on the heads of those who belong to a higher order of animal life.



Geo. A. Lane

Mr. Earl is devoted to his business, and looks upon the so-called honors of public life as questionable gifts, alluring to the eye, but, like the dead sea fruit, turning to ashes on the lips. Temporary notoriety, unwise ambition, and in the end disappointed hopes, he recognizes as the goal to which the paths of the politicians too often lead, and he has persistently refused to enter them. Though in early life a free-soiler, and later for the most part affiliating with the Republican party, he keeps his mind open to convictions on political as well as other subjects, and refuses to moor himself to a partisan anchor which will prevent honest thought and independent action. In theology he is a Universalist, and seeks to be tender and charitable in his judgments of his fellow-men, as he believes his Creator to be in his final treatment of the erring and sinful.

Ma. Earl married, June 23, 1857, Helen B, daughter of John L. and Lydia L. (Woodbury) Corliss, of Lowell, and has two daughters and a son, who is with his father in business.

GEORGE AUGUSTUS GANE.

THE grandfather of the subject of this sketch, bearing the name of Gagne, came from France and settled in the province of Quebec. His son, John B. Gagne, born in St. Thomas, P. Q., in 1800, married Harriet Trudell, a native of Quebec, and in 1854 removed to Island Pond, a town in Vermont. After removing from the French colony in Quebec to a New England village, he changed the spelling of his name to Gane, which was simply a translation, and thus assumed the name, as well as the habits, which was more nearly allied to the language of New England people. While in Canada he entered extensively into the timber trade, sending to the shipyards at Pt. Levi and Quebec considerable material for the construction of ships. Accustomed to the work of clearing timber land, he cleared under contracts a strip about twenty-five miles in length for the construction of the Passumpsic Railroad, and a strip of fifty miles for the construction of the Grand Trunk road. His wife died at Island Pond in 1885, and he died in the same place in 1892, ninety-two years of age.

George Augustus Gane, son of John B. and Harriet (Trudell) Gane, was born in Quebec March 1, 1850, and at four years of age removed with his father's family to Island Pond. He was educated in the public schools, and after leaving school was employed as a clerk in the store of Gilkey & Denison, having his home with his father. In 1869, at nineteen years of age, he removed to Waltham, Mass., and was employed one year as book-keeper in the store of Calvin Fiske, a grain dealer. He was afterwards a clerk in the dry-goods store of F. Bryant in Waltham, and at the end of a year bought him out, and carried on the store two years on his own account. He then formed a partnership with W. E. Willard, and continuing with him one year in the same business, he then sold his interest to Mr. Willard and began in a small way in Waltham the manufacture of white shirts to custom trade. At the end of a year he removed to Fitchburg, Mass., on account of the delicate health of his wife, and continued custom work there in the same line three years. Having made himself proficient in the manufacture of shirts, he was induced to remove to Leominster, Mass., and there start the Leominster Shirt Company, the members of which were C. E. Dresser, D. C. Nickerson and F. A. Whitney. This was the beginning of an industry in Leominster which now employs in that town nearly fifteen hundred hands. At the end of a year the company sold out to E. A. Buffington, and Mr. Gane remained in his employ about six months, and soon after

began to manufacture on his own account under the name of the Wachusett Shirt Company. F. A. Whitney, one of the members of the old Leominster Shirt Company, became his partner at the end of a year, and starting with only seven machines, the business increased so rapidly that the company, moving from one place to another as enlarged accommodations were required, finally built a brick mill and established a large and profitable industry. In 1889 the firm was organized as a joint-stock company, and Mr. Gane was made treasurer and general manager. January 1, 1895, he retired from the company, at which time about six hundred hands were in its employ, requiring a monthly pay-roll of \$20,000, and the value of its annual product was \$700,000. Its offices were in New York and Chicago, and its sales reached every state in the Union.

After Mr. Gane left the Wachusett Shirt Company, it was feared that with his business ties to Leominster severed, he might remove from town. A man who by his enterprise and sagacity had done so much to promote the wealth and growth and welfare of the town, could ill be spared. The whole community realized the importance of retaining him as a member, and the Board of Trade, representing the business interests of the town, took active measures to induce him to remain and establish himself in business. The president of the board communicated to him the following vote, alike creditable to the discernment of its members and flattering to its recipient :

"MR. G. A. GANE,

"*Dear Sir* :—At a meeting of the Leominster Board of Trade, held January 14, 1895, a motion was unanimously adopted requesting the President of the Board to inform you that they take cognizance of the fact of the recent withdrawal of yourself from a corporation, in which you have so long been prominently connected, and to assure you of the esteem and confidence, in which you are held by this Board, and further to express the appreciation of the benefit you have been to the town of Leominster as a business man and citizen, and they instruct me further to express to you their earnest desire that you remain in our town and that as a Board and as individuals they will render you every assistance to establish yourself in business in this town.

"The Board has by vote instructed their Committee on Manufactures to confer with you and receive any suggestion or proposition you may have to submit with a view to your continuation in business in Leominster.

"With assurances of my own personal regard I beg to remain,

"Respectfully yours,

"S. A. STEVENS,

"Pres. Leominster Board of Trade."

When it became known by the employees of the Wachusett Company that Mr. Gane had severed his connection with the company, a general and sincere regret was expressed, and a movement was at once made to emphasize the spirit of friendliness and good will which had ever characterized their relations with their employer. On the evening of January 8, 1895, five hundred workers in the mills of the company appeared at the house of Mr. Gane, and, through their representative, presented to him a large roll-top desk, a handsome leather-covered chair, a silver inkstand, and a gold pen and holder. The Leominster Orchestral Club furnished music for the occasion, and the whole demonstration, contrasting so strongly with those usually touching the relations between labor and capital, was calculated to serve as an important and lasting lesson to both.

Mr. Gane decided to remain in Leominster, and early in 1895 he erected the large wooden factory now occupied by him, and established himself in his old business, under the name of the G. A. Gane Shirt Company. In the erection of the factory,



M. D. Haws

of which his brother Charles was the architect, he displayed the same energy which has always characterized him in his business operations. In four months and twenty days from the time the lot was surveyed the factory was in full operation. It contains a little less than an acre of floor space, and is operated by a sixty horse-power engine, and gives employment to over three hundred hands. He has recently started another factory at Island Pond, Vt., of about the same capacity, which is run by a forty horse-power engine, and intends to employ four hundred hands. The monthly pay-roll of both factories will, when in full force, be \$25,000, and the annual product a million. His brother Charles is his assistant at the home mill, and the mill at Island Pond is under the charge of his brother Edward. The product of the two mills consists of one hundred and fifty styles of white shirts, which are put on the market at offices in New York and Chicago. Doubtless few of the readers of this sketch are aware of the extent of the shirt industry, in the development of which Mr. Gane has been one of the chief factors. Many of them can remember when every shirt in the country was either an article of domestic manufacture, or made to order and to measure by some enterprising dealer in furnishing goods. This important industry has come to the relief of the housewife, and given her an appreciable time for rest or amusement or study, which was spent before in one of the many wearing drudgeries of home. No man has done more to cause this relief than Mr. Gane, and the financial success which has attended his labors cannot fail to be regarded by every mother and daughter as a worthy and deserved reward. His father, who had spent the better part of his life swinging the axe in the woods of Canada and Vermont, lived long enough to see his son rise step by step from the lowly farmer's life to comparative affluence, and from obscurity to a place in the front rank of the manufacturers of New England.

Mr. Gane married, February 4, 1873, Lizzie B., daughter of F. F. and Mary E. Clark, of Waltham, and has four children: George Louis, who is with his father in business; Alfred Augustus, now a pupil in the Kent Hill Academy in Maine; Blanche Trudell, at school, and Elizabeth Margurite, still in her childhood.

MANSON DANA HAWS.

ACCORDING to the census of 1890 the population of the town of Leominster, Mass., was 7,269, and its valuation \$4,342,110. Few towns of its size and wealth can boast of such a variety of industries as that in which its people are engaged. Of course, at the time of its incorporation, in 1740, agriculture was its chief business, and it continued such until the close of the last century. One new industry after another has found a lodgment in the town, and added steadily to its population and property valuation. The manufacture of combs was introduced from West Newbury, Mass., in 1775, and in 1796 the business of making paper was begun. Tanneries, factories for the manufacture of pianos and piano cases followed at various times, and the woolen industry soon found a place on its streams. The manufacture of children's carriages, machinery and various small products from iron, chamber furniture, toys and games, leather board, shirts, and articles in rattan has followed the active development of the ingenuity of its people, and given further impetus to its growth. Among all these industries, the manufacture of boots and shoes has readily found a place. This business was introduced into the town in 1796 by Benjamin Haws, and descending from him to his son, Amos Haws, was sold by him, in 1833, to Bartimeus Tenney, and again by him, in 1839, to the son of Amos Haws, Manson Dana Haws, the subject of this sketch.

Manson Dana Haws, son of Amos and Mary (Forbush) Haws, was born in Leominster August 28, 1817, his father having been a resident in that town after he was two years of age. He was educated in the public schools of that town, and remained at home with his father until he was sixteen years old. At that time his father sold out his boot and shoe business to Bartimeus Tenney, and Mr. Haws went to Fitchburg, Mass., and entered the employ of Manassa & John Sawyer, boot and shoe manufacturers. He remained with them one year, and the Messrs. Sawyer having another apprentice in their shop, and having no longer suitable work for both apprentices, his father made an arrangement with James Whittemore, of Worcester, to have him go into his shoe shop for three years, to complete his education. After working in Worcester three years, he worked one year in the two towns of Sterling and Randolph, Mass., at his trade, having in the meantime declined the position of superintendent of the shoe department in the Worcester Insane Asylum. In May, 1839, at the age of twenty-two, he returned to his native town, and bought of Mr. Tenney the business, which Amos Haws, his father, had sold to Mr. Tenney six years before. Beginning at that time on his own account a business, which had come down to him through his father from his grandfather and great-grandfather, he carried it on without interruption from June 9, 1839, until his final retirement on the first of November, 1885. His manufacture, at first, including men's and women's boots and shoes, was during the larger part of his career confined chiefly to ladies' shoes, and so prudently and skillfully was it conducted that, during the forty-six years of his management, his men were never without work. This fact illustrated a tender regard for the welfare of his help in times of business depression, when a sole regard for personal interest would have induced him to follow the example of others and suspend operations. With an increase of business a new and larger factory took the place of the old in 1850, and this factory was from time to time further enlarged to meet the requirements of a continuous growth of his trade and to permit the introduction of more approved machinery and power. The business management of Mr. Haws was characterized by a sagacity and energy, which made the enterprise under his care a safe and profitable one. The temptation to enlarge indefinitely his product, which has led so many into dangers, which they were unable to foresee, and which they found, when too late, they could not avoid, he resisted with a cool and prudent restraint, which always kept his business under complete control. Always master of his business, he never permitted his business to become master of himself. He gave his personal direction to his work, and made his own sales. He was methodical in everything, prompt in his payments and never procrastinating in his collections. Under the rigid inspection of the officers of the Internal Revenue Department his books were always found clear and correct. He kept the field of his industry within such limits as enabled him to watch and carefully guard every part. It is possible that he might have extended the limits of the field, and achieved a grander success than that, which has crowned the labors of his life. It is possible, too, and not improbable, that such an extension might have ended in his financial ruin.

Aside from the manufacture of shoes at his shops in Leominster, he employed inmates of the Massachusetts State Prison in the same business from 1850 to 1860 under two contracts each for five years entered into with the warden of the prison.

In 1885, he leased his factory to O. H. Smith, and, as has been stated, retired from active business. During his business career, and also since his retirement, he has occupied many positions of honor and trust. In 1862 he was a representative, and in 1855, 1856, 1859, 1860, 1861, 1862 was a member of the Board of Selectmen, of



George H. Morse

which in 1856 and 1861 and 1862 he was chairman. He served also as moderator of the annual town meetings of Leominster in 1864, 1865, 1867, 1869, 1872, 1876 and 1877. He was also prominently associated with the movement, which resulted in 1873 in the construction of the Leominster Water-works. He caused an article to be inserted in the warrant for a town-meeting, which was held November 8, 1870, "to see what action the town would take to obtain water." Under that article he was appointed one of a committee to examine the subject, and their report laid the foundation for the consummation of the enterprise two years later. When the Leominster Street Railway was organized in 1891, an enterprise in which he took an active interest, he was chosen president and superintendent, and held those offices until the franchise of the road was sold to the Fitchburg Street Railway Company and the two boards were consolidated. After the sale and consolidation he was chosen a director of the consolidated company, and still holds that position. He was at one time a director in the First National Bank of Leominster, and a trustee and member of the Board of Investment of the Leominster Savings Bank. He is now a trustee of the Worcester North Savings Institution of Fitchburg, and has been since 1875 a director of the Rollstone National Bank of that city. To the settlement of estates placed in his hands as executor or trustee he has conscientiously devoted much of his time, and has always enjoyed the unwavering confidence of parties in interest in his judgment and integrity. To such an extent has this confidence existed that as executor and trustee he has always been exempted from giving bonds for the faithful performance of his duties.

In religious belief Mr. Haws is a Unitarian, and in political affiliations a Republican. In both church and party he is active and influential, and a willing contributor to their support. He married March 5, 1843, Lucy Ann, daughter of Alexander and Hepzibeth (Peabody) Graham, of Lunenburg, Mass., and is now in his seventy-eighth year, active in mind and body, enjoying in peace and content the deserved rewards of a laborious and honorable life.

GEORGE FRANKLIN MORSE.

AMONG the early settlers of Ipswich, Mass., was Joseph Morse, who with his wife Dorothy appeared in that town in 1635. He afterwards removed to Watertown, where he became prominent in the management of those complicated affairs incident to the formation of the early municipalities of New England. Gardner Morse, a descendant of Joseph, was born in Dorchester, Mass., in 1811, but removed to Leominster, Mass., in 1827, and married in 1833 Mary Ann Willard, of Sterling. He learned the trade of comb-making, and afterwards carried on the business with success until his retirement in 1871.

George Franklin Morse, son of Gardner and Mary Ann (Willard) Morse, was born in Leominster, October 26, 1835. He received his early education in the district and private schools of his native town, and in its high school, of which he was one of the earliest graduates. At the age of sixteen he went to Boston and entered the store of Hill, Burrage & Co., importers of woolen goods, where he remained two years. Alvah and Charles H. Burrage, members of the firm of Hill, Burrage & Co., were natives of Leominster, and felt an interest in the advancement of their young townsman. At that time his father was engaged in the manufacture of combs in Leominster with his uncle Augustus, under the firm-name of G. & A. Morse, and

also carried on a large store for the sale of general merchandise. A favorable opportunity occurring, he returned to Leominster, and for several years served as book-keeper in his father's establishment, and as a member of the firm of Gardner Morse & Co., which consisted of Gardner Morse, George F. Morse, William Booth and Joseph F. Goodhue. In 1857 the Morse Comb Company was organized, and of this company George F. Morse was chosen secretary. This was the first stock company formed in Leominster. On the first day of May, 1861, the company lost its factory by fire, and went out of business. George F. Morse associated with his father, took the property, and rebuilding, carried on the business under the firm-name of G. Morse & Son. Soon after the outbreak of the war he severed his connection with his father, and entering the quartermaster's department of the Army of the Potomac, continued in service in Maryland, at Harper's Ferry, and on the Rappahannock until after the battle of Fredericksburg, when he left the service. His accounts, involving complicated entries and large values, were promptly approved, and highly commended for their clearness and accuracy.

On leaving the army, in connection with his uncle, Gen. Augustus Morse, he bought the City Hotel property at Annapolis, Md., which he held for a year, and in 1864 again resumed the comb business in Leominster with his father. Remaining with his father three years, he then went to Lawrence, Kan., with the intention of locating there, but in consequence of an accident, removed in 1868 to Boston, and for a year was the proprietor of the Creighton House in Boston. In 1869 he sold his interest in the hotel to Mr. F. E. Balch, and again returned to his native town. On his return he associated himself with his brother, Albert G. Morse, under the firm-name of G. F. Morse & Co., and entered into the business of buying and selling horns, hoofs, bones and hides. The constantly enlarging manufacture of horn combs and horn jewelry was at this time largely increasing the demands for horns, and the business of the firm was carried on with energy and success. Aside from the supply of horns, which the western part of our own country furnished, large drafts were made on South America, Mexico, Cuba and other countries, where large herds of cattle are raised, and these distant markets Mr. Morse found it necessary to visit in order to obtain his stock in trade to the best advantage, disposing of the same in this and different countries of Europe, which he visited for that purpose, thus combining business with pleasure. In 1885 he practically retired from the business in which he had been for so many years more or less engaged, and his partner, Albert G. Morse, is now actively connected with the New Century Educational Company, recently organized for the publication of books and supplies to be used in the public schools.

The retirement of Mr. Morse from the comb and horn business has by no means left him, however, an idle man. His field of operation has been rather broadened than narrowed, and many enterprises are receiving the benefit of his active intelligence, shrewd foresight, and sound judgment. In 1880 he was prominent in the formation of the Hecla Powder Company, and until his resignation in 1888 was its president. The headquarters of this company are in New York city, and its works are in Rahway, New Jersey. William Dupont is now the president, Mr. Morse is a director, and his son, Ralph G. Morse, is secretary.

In 1882 he was chosen president of the South Spring Hill Gold Mining Company, of Amador City, California, and is still in office. In the performance of his duties as president he has crossed the continent twenty times. The capital of this company is \$240,000, consisting of one hundred and twenty thousand shares of a par value of two dollars, and the product of the mine since June 1, 1882, has been



Israel Johnson,

\$1,203,749, or about five times the par value of the capital stock. Since that time the dividends have amounted to \$268,384.

Mr. Morse was four years president of the White Star Shirt Company, of Leominster, and was one of the promoters, and a member of the building committee of the Leominster Street Railway. He was also a director of this company until its consolidation with the Fitchburg Street Railway, under the name of the Fitchburg and Leominster Street Railway. He is a director of the Leominster Gas Light Company, has been a director in the Wachusett National Bank, of Fitchburg, since its organization, and has held the offices of notary public and justice of the peace since appointed by Governor Talbot in 1874.

The political affiliations of Mr. Morse are with the Republican party, and his theological with the Unitarian Church. He feels a deep interest in the religious society of which he is a member, and he has been honored by his party by two elections as a member of the executive council, in which body he served in 1892 and 1893. As a Mason he is a member of the Blue Lodge and of the Jerusalem Commandery. He has also served his town in such honorable capacities, including the offices of auditor and library trustee, as bring to their incumbents, rather an assurance of the confidence of the community in their integrity and judgment, than an increase in their store.

Mr. Morse married June 1, 1859, Mary Eliza, daughter of Nathan and Eliza (Downe) Tufts, of Fitchburg. His children are Ralph Gardner, already referred to as the secretary of the Hecla Powder Company, who married Susie F. Colby, of Charlestown, Mass.; Alice A., who married Charles A. Joslin, the town treasurer and collector of Leominster; Florence T., who married William A. Putnam, of Leominster, a native of Wilton, N. H.; and Margaret D. and Mabel W., twins, unmarried. Though connected with many enterprises requiring unremitting activity and the constant exercise of careful thought, the attractions of his home are greater than those of all the world beside, and in the rest and happiness of the domestic circle, of which he is the centre, he finds a never-failing relief from the cares and perplexities which beset the paths of his business life.

IVER JOHNSON.

THE great and varied influence that is exerted by a man of high aims in business, and in his relations to the community in which he lives, was well exemplified in the career of the late Iver Johnson, who was in every respect a typical representative of the New England character—persevering and enterprising, courageous and conservative, of scrupulous and exact habits of mind, a man of the highest intellectual and moral integrity. Such a man exerts a more wide-spread and vital influence in the actual life of the community in which he lives than hundreds of secluded and retiring teachers of ethics in colleges and in literature; for he is an active figure in the initiation of every good movement that makes for character and righteousness in the community, and he teaches men, not remotely, as mere ethical teachers do, but keenly and vitally in every-day associations and aims.

Mr. Johnson was a native of Nordfjord, Norway, where he was born February 14, 1841, his father being a tiller of the narrow acres which for a thousand years had been handed down from father to son. At the age of sixteen, young Johnson went to Bergen, and served as an apprentice to a gunnaker, where, by hard and conscientious work, he became thoroughly equipped in the profession which was destined to be the

occupation of his life. In 1862 he went to Christiana, the capital city of Norway, where he continued at his trade one year, and then in 1863, at the age of twenty-two, he emigrated to the United States, and located in Worcester. At this period gun-making was at the full tide of prosperity, and he found no difficulty in securing work at his chosen trade. After remaining in the employ of Allen & Wheelock several years, in 1871, having accumulated a small capital, he associated himself with Martin Bye in the manufacture of pistols, under the firm-name of Johnson, Bye & Co. The new firm opened business in a small room in Church street, Worcester, and in 1873, having outgrown their accommodations, removed to the Armsby Building, where they occupied two rooms and employed about fifty hands. In order to accommodate their rapidly increasing business, they hired additional room from time to time, until in 1881, they occupied the entire structure. In 1883, Mr. Johnson purchased the interest of his partner, and up to 1892 the business was conducted under the firm-name of Iver Johnson & Co. In the meantime, other articles of manufacture had been added to the lists of their products, including drop forgings of all kinds, nickle plating and latterly bicycles. The business which had been begun years before in a small way had in 1890 increased to such proportions that it required the labor of more than four hundred hands for its prosecution. In 1890 the firm manufactured about two thousand bicycles; in 1891 the number had increased to seven thousand, and their sales were only limited by the capacity of their establishment. The machine was the celebrated Diamond Safety Bicycle, the first of which was made by Iver Johnson & Co. With the marvellous success attending the manufacture of these machines came the demand for a larger plant and more commodious accommodations, and the inability to obtain these in Worcester decided Mr. Johnson to remove the business to Fitchburg. He purchased the land and buildings formerly occupied by the Heywood Chair Co., and in 1891 removed his establishment to Fitchburg, and in the autumn of that year it was in running order, employing about five hundred hands. Upon the removal of the business to Fitchburg, the name of the establishment was changed to the Iver Johnson's Arms and Cycle Works.

While residing in Worcester Mr. Johnson had taken an active interest in all measures tending to advance the interests of that city. He was a director in the Sovereigns' Co-operative Store, a director in the Equity; also the Home and the Worcester Co-operative Banks. He was prominently identified with the Masonic fraternity, was a member of Athelstan Lodge, F. and A. M., and had advanced to the thirty-second degree in that fraternity. He was also a member of the Mystic Shrine of Boston.

Upon his arrival in Fitchburg the citizens of the latter city were quick to discern his sterling qualities, keen foresight and good judgment, and he was chosen to fill the first vacancy in the board of directors of the Fitchburg National Bank, and also in the board of trustees of the Fitchburg Savings Bank.

To-day the Iver Johnson's Arms and Cycle Works hold the proud position of being among the foremost of the establishments of the United States in the manufacture of fine firearms and bicycles, and none have a wider or better reputation. They were among the very first in America to introduce the cycle of the safety type, and also that which is known as an automatic safety revolver, or a hammerless revolver.

April 19, 1868, Mr. Johnson united in marriage with Mary E., daughter of John and Jeannette Adams Speirs, of Worcester, and the family consist of five children, four of whom survive, viz.: Frederick Iver, John Lovell, Walter Olaf and Mary Louise. Mr. Johnson died August 3, 1895.



L. M. Silliman

Prominent among Mr. Johnson's personal traits of character was his sound discriminating judgment, his fearless and impartial discharge of official and private duties. He was a man of spotless integrity, of quick comprehension and accuracy, of method and faithfulness in business, and these qualities made him an acknowledged leader in the community. Decision of character, tact and sagacity were indicated in every line of his strong, earnest face, and when united with his physique the picture was complete of a man born to achieve success in business, to command the confidence and respect of his associates. In an age advanced for mechanical skill, and the application of force to the development of material resources, men of the quality of Mr. Johnson are absolutely indispensable. Metaphysicians and theorists are relegated to seclusion, while practical thinkers and doers are advanced to leadership.

DAVID M. DILLON.

DAVID M. DILLON son of William Dillon was born in St. John, New Brunswick, April 15th, 1843. He was educated in the public schools of St. John and at the age of sixteen years came to the United States. During the Rebellion he entered the service of the government, and for nearly two years was employed at Port Royal in the repair of transports. In 1865 he left the service and, settling in Worcester, Mass., formed a partnership with Charles Stewart in the business of manufacturing and repairing steam boilers. In 1869, after the dissolution of the partnership, he removed to Fitchburg and established himself in business on his own account. At that time, though only twenty-six years of age, he had won a reputation as a mechanic rarely secured except by those of maturer years. The special department, to which he has directed his labors, and in which he has won distinction, is that of manufacturing steam boilers from steel plate. The first successful results in this manufacture were secured by him. It is well known that steel plate will resist a greater pressure than iron, and it is for this reason that a boiler constructed of steel can be worked higher and be used to better advantage by way of economy in space and fuel. The element of safety too is a feature, which alone gives to the steel boiler a character ensuring its almost universal adoption. In the hands and under the skillful direction of Mr. Dillon the steel boiler has brought about a revolution in the use of steam as either a motive power or a generator of heat. In the manufacture of boilers he uses about five hundred tons of steel plate annually, all of which are cut to required dimensions at the mills where they are rolled. These plates are subjected to the most exacting tests before and after they are made up into the boilers, and the thoroughness and care in this respect, with which the product of Mr. Dillon is manufactured, have given his work a high reputation, not only in the United States, but in other important markets of the world.

The plant of Mr. Dillon in Fitchburg, which was erected in 1872, is situated on Crocker street, near the railroads, and is thoroughly equipped with every modern convenience and the most approved machinery for accomplishing the work for which it was designed. In addition to the extensive work of original construction carried on at the mill, many of the manufacturers in Fitchburg and its neighborhood rely on Mr. Dillon for their boiler repairs.

The important industry conducted by Mr. Dillon has not only been a profitable one to himself, but has also done much towards extending the reputation of Fitchburg as a manufacturing centre. But not only has he thus indirectly exerted a beneficial influence on his adopted home, but with a liberal public spirit he has in every

way open to him done what he could personally to promote its commercial and industrial welfare. In matters of a public nature he has taken a deep interest, and in their initiation and development his fellow-citizens are eager to seek and willing to follow his advice and counsel. The wants of the common people, especially those of industrious mechanics, have been thoughtfully and earnestly studied by him, and to the end of promoting their welfare he has been a strong advocate and an active organizer of the co-operative banking system. He has been strongly imbued with the belief that such a system will be the means of securing to the honest laboring man a safe and permanent home and all those opportunities for a higher life and a more thorough development of character, to which such a home must necessarily lead. He took a prominent part in organizing the Fitchburg Co-operative Bank, and has already seen the practical results of his work in the happiness of those who, by its aid, are enjoying the peace and comfort of a home actually their own.

Aside from his legitimate business and the banking system above referred to, Mr. Dillon is connected with various associations and enterprises, which shares with them his aid and support. He is president of the Fitchburg Real Estate Association and was of the Fitchburg Board of Trade in 1893, and is a director of the Parkhill Manufacturing Company. As an Odd Fellow he is a prominent member of the Mount Roulstone Lodge, the King David Encampment and the Alpine Lodge of Knights of Pythias. In politics he is a Republican, and in 1886 and 1887 was a member of the Fitchburg Board of Aldermen. His inclination, however, is rather to avoid active participation in political management, and more especially to resist the temptations to which too many yield to join in the scramble for office and station. Political life is the rock on which the career of many a business man has been wrecked, and, conscious of this, Mr. Dillon has been careful to keep in the clean and open and deep channel of his legitimate business, which he has sounded and surveyed himself, and with whose shoals and quicksands he is familiar.

He is now at the age of fifty-four, in the enjoyment of bodily health unimpaired and a capacity for business unabated, adding daily to his experience as a manufacturer and to the respect and esteem in which he is held by his fellow-citizens.

HENRY AUGUSTUS GOODRICH.

HENRY AUGUSTUS GOODRICH is descended from William Goodrich, who came from England and settled in Watertown, Mass., in 1634. A grandson of William Goodrich, bearing the name of David, was one of the first settlers of Fitchburg, Mass., and a deacon of the first church in that town. He was a prominent man in the newly-settled town, and in Revolutionary times was a member of the Provincial Congress. John Goodrich, son of David, served as a soldier during the Revolution, and was engaged in the battle of Bunker Hill. The sons and grandsons of John lived in Fitchburg. Among the grandsons was John Goodrich, who married Mary A. Blake, and who was the father of the subject of this sketch.

Henry Augustus Goodrich, son of John and Mary A. (Blake) Goodrich, was born in Fitchburg, November 22, 1830. He was educated in the public schools of his native town and at the Fitchburg Academy. At the age of twenty-one years he was appointed overseer in one of the woolen mills in Fitchburg, and served in that capacity four years. In 1855 he opened on his own account a hat and furnishing-goods store in Fitchburg, and by his energy and enterprise established himself so successfully in business as soon to require increased accommodations for its proper



Henry A. Goodrich

execution. He also opened a branch store in Brattleboro, Vermont, which was for some time carried on with satisfactory success. His present store in the Dickinson block, confined chiefly to the business of a clothier, is one of the most thoroughly equipped establishments of the kind in the state, and has become a source of supply not only to the wants of the people of Fitchburg, but also of those living in the neighboring towns.

Aside from his legitimate business, Mr. Goodrich has been associated with many enterprises of both a private and public nature, which have not only been profitable to himself, but also to the community, in whose welfare and prosperity he feels the deepest interest. At one time he was the owner of an undivided half of the handsome block now occupied by Nichols & Frost, and from 1868 to 1874 was the owner of the American House. He afterwards erected on Day Street two large business blocks, one of which is known as the "Goodrich Block." He was an active participant in the movement to establish a Fitchburg Board of Trade, and was one of its first vice-presidents. He was a member of the board of managers of the Massachusetts Mutual Aid Society at its organization, and in 1886 its chief executive. He was chosen in 1887 president of the Merchants' Association and of the American Pruning Company, and in 1891 became president of the Wachusett Mutual Fire Insurance Company. He is also a trustee of the Worcester North Savings Institution, a director in the Safety Fund National Bank and a trustee of the Public Library.

The political affiliations of Mr. Goodrich are with the Republican party, as the successor of the Free Soil party, of which he was an active member. In 1870 and 1871 he was a member of the General Court from Fitchburg, and in 1872 was chosen a member of the first Board of Assessors of the city after its incorporation in that year. In 1885 he was nominated for mayor by the Citizens' party, and again in 1893 by the Republican party, and in 1892 was chosen elector for the Fourth District, and cast his electoral vote for Benjamin Harrison. During the Rebellion he was eminently patriotic and useful in filling the ranks of Massachusetts regiments in the field, and was selected to serve as treasurer of the Fitchburg Bounty Fund. After the battles in the Wilderness, he was sent by the town to look after disabled soldiers in the hospitals of Washington and Fredericksburg, and his gratuitous and useful service won grateful commendation.

Mr. Goodrich has found time, notwithstanding the demands of business, to cultivate his mind and to indulge in literary pursuits. He is a ready writer and fluent speaker, always ready to respond at social gatherings with speech or rhyme, to the call of the master of the feast. He is a member of the Fitchburg Historical Society, and at its autumn meeting in 1895 he read an exhaustive paper on "The first half century of high schools in Fitchburg." In this interesting paper he rescued from oblivion and placed on permanent record facts relating to the school history of his native town, to which the future historian will easily and gratefully turn.

Mr. Goodrich married in December, 1856, Harriet, daughter of John Stebbins, of Vernon, Vt. His son, William Henry, twenty-three years of age, whose death occurred March 24, 1894, while a student at Tuft's College, was, on his father's side, the ninth in descent from William Goodrich, who settled in Watertown in 1634, and on his mother's side the ninth in descent from Roland Stebbins, who settled near Springfield in the same year. He was a young man of high character and great promise, and an acknowledged leader among his classmates at college. His only other child is Emma L., the wife of W. L. Humes, of Fitchburg. Mr. Goodrich is in the prime of life, active and vigorous in body and mind, with a future full of promise of honor to himself and usefulness to his fellow-citizens.

MORTON E. CONVERSE.

IN 1630 Edward Convers came from England, and settled in Charlestown, Mass. He was descended from Pierre Coigniers, who, at the time of the massacre of St. Bartholomew, escaped with his wife and two infant children to England, and settled in the county of Essex. The family name was successively changed from Coigniers to Conyers, from the latter name to Convers, and finally to Converse. Edward Convers was a selectman in Charlestown from 1635 to 1640, and was afterwards one of the first settlers of Woburn in 1642, in which town he was a selectman from 1644 until his death, August 10, 1663. By a wife Sarah, who died January 14, 1662, he had four children, James, Josiah, Samuel, and Mary.

James Convers, son of Edward and Sarah Convers, was born in England in 1620, and came to New England with his father in 1630. He married, October 24, 1643, Anna, daughter of Robert Long, of Charlestown, and died in Woburn, May 10, 1715.

James Convers, son of James and Anna Convers, was born in Woburn, October 16, 1645, and died in that town July 8, 1706. He was ten years a member of the General Court, and speaker in the House of Representatives in 1699, 1702, 1703 and 1704. He married, January 1, 1669, Hannah, daughter of John and Elizabeth Carter, of Woburn, and had nine children, of whom four died in infancy.

John Convers, son of James and Elizabeth (Carter) Convers, was born in Woburn, August 22, 1673, and married, May 22, 1699, Abigail, daughter of Joshua Sawyer, of Woburn. He died in Woburn, January 6, 1708.

Joshua Convers, son of John and Abigail (Sawyer) Convers, was born in Woburn, June 3, 1704, and removed to Dunstable, Mass., where he married, July 31, 1729, Rachel, daughter of Joseph and Abiah (Hassell) Blanchard. He removed to Naticook (now Merrimack), N. H., in 1729, and was drowned in the Merrimack river in 1744.

Zebulon, son of Joshua and Rachel (Blanchard) Convers, was born in Naticook March 21, 1744, and changed his name to Converse. He married in 1773 Sarah, daughter of Nathaniel and Olive (Wheeler) Merriam, of Bedford, Mass., and removed very soon after to Rindge, N. H., where he died November 10, 1805.

Joshua, son of Zebulon and Olive (Merriam) Converse, was born in Rindge April 23, 1781, in which town he was an extensive manufacturer, and served as representative, as a delegate to the Constitutional Convention of 1850, and for seventeen years as a selectman. He married first May 6, 1808, Polly, daughter of Thomas and Hepsibeth (Jewett) Piper, and second May 20, 1841, Polly, daughter of William and Abigail (Hamlet) Kimball, of Rindge, N. H., and died September 10, 1866.

Ebenezer H., son of Joshua and Polly (Piper) Converse, was born in Rindge, N. H., November 14, 1811, and married October 8, 1835, Sarah, daughter of Jewett B. and Hannah (Murdock) Darling, of Winchendon, Mass. Notwithstanding his exemption from service by reason of age, he served as captain in the Sixth Regiment of New Hampshire Volunteers in the war of 1861, and was engaged in the North Carolina expedition of General Burnside. He married, second, June 2, 1877, widow Harriet E. Dearborn, daughter of James and Hannah (Kidder) Leland.

Morton E. Converse, the subject of this sketch and a son of Ebenezer H. and Sarah (Darling) Converse, was born in Rindge, N. H., September 17, 1837. He took his name from the Rev. Daniel Oliver Morton, father of the late vice-president, Levi P. Morton, by whom his parents were married. He was educated in the public



Morton Converse

schools of Rindge, and in a neighboring academy. After attaining his majority he was in business at Salmon Falls, N. H., until the beginning of the war. At the time of the first call for three-years' men he enlisted in the Sixth New Hampshire Regiment, one of the companies of which was commanded by his father. He served in the expedition of General Burnside to North Carolina, and afterwards in the Army of the Potomac, being engaged in the battles of Bull Run, Chantilly, South Mountain and Antietam, and later in the Army of the West at Vicksburg, and at various other points in Mississippi, Tennessee and Kentucky. In the spring of 1864 he rejoined the Army of the Potomac, and was present at the battle of Cold Harbor, and at the assault on Petersburg. In the autumn of 1864 he was discharged at the expiration of his term of service, during two years of which he had been acting as commissary of subsistence.

In 1867, having during a period of rest recovered from the injurious effects of the military service on his health, he began and continued until 1875 in Rindge the manufacture of pyroligneous acid and other products of wood acid. While engaged in this business he bought a mill in Rindge in 1873, and refitted it for the manufacture of wooden ware. In 1878, he associated himself with Orlando Mason, of Winchendon, under the firm-name of Mason and Converse, and engaged in the manufacture of toys and other wooden ware in that town. Mr. Mason has been engaged in the wooden-ware business since 1853, and had established himself successfully in an industry which continued prosperous in the hands of the new firm.

In 1883, on the dissolution of the partnership of Mason & Converse, Mr. Converse became associated with his uncle, Alfred C. Converse, of Chelsea, Mass., and continued his former business in Winchendon, under the name of the Converse Toy and Woodware Company. The new firm bought the Monadnock Mill, and met with uninterrupted prosperity. In 1887, under the name of Morton E. Converse & Co., the same parties erected a new mill in addition to the old one, and began to add to their products reed and rattan chairs and reed furniture. Improved facilities for cutting cane were introduced, and the firm were thus able, not only to supply themselves with the cut reed, but others also in the trade. The introduction also of machinery in the manufacture of toys soon enabled them and others in the same line of business not only to supplant the hand-made toys of Germany and other foreign countries in the American market, but to export also large amounts of these goods. In the manufacture of toys it is probably true that the Converse establishment is the largest in the world. In meeting the demand for these goods great judgment and skill are required. The fancies and tastes of all kinds of people must be studied and catered to. Designs which fail to catch the popular eye will prove unsalable, and money and labor expended in their manufacture will be lost. Precisely those qualities needed for the successful prosecution of the business are possessed by Mr. Converse, and as much thought must be used and knowledge of human nature exhibited in carrying it on as if its products, instead of merely affording amusement and pleasing the fancy, were intended to meet the highest requirements of the most advanced utilitarian age. In the various departments of his enterprise Mr. Converse employs one hundred and fifty to two hundred hands, requiring an annual pay-roll of \$40,000.

The exhibit at the World's Columbian Exposition at Chicago in 1893 of the goods manufactured by this firm attracted great attention from visitors and received the highest award—two medals and a diploma for the finest toys in the world. On the 30th of June, 1896, Mill No. 1, the engine and boiler house, case factory, several store-houses and store-sheds, with a large quantity of lumber in the yard, were destroyed by fire. Before the smoke ceased to rise from the ruins plans were made for rebuilding, and active work commenced in this direction. Within a few days power

was secured by electric motors and machinery moving in a temporary building, while before many weeks new buildings were erected to replace those destroyed, and the business was progressing on a larger scale than before. Since this conflagration a most complete external and internal water system for fire protection has been inaugurated, making this one of the best protected wood-working mills in the country.

Mr. Converse married, August 19, 1869, Hattie M., daughter of Thomas and Susan (Peacock) Atherton, of Lowell, who died in Winchendon, October 28, 1886, leaving two children: Grace Atherton, born November 17, 1873, and Atherton Darling, born January 7, 1877.

September 17, 1889, he married Bertha E. Porter, of Chicago, Ill., daughter of Rev. Samuel Porter. Since then he has resided at No. 86 Front street. His is one of the most modern, attractive and well-arranged residences in northern Worcester county. This location overlooks Miller's river, and the hills and valleys beyond, one of the most delightful and inspiring views to be found anywhere.

For twenty years he has been a citizen of Winchendon, Mass., during which time he has been active and zealous in the promotion of its advancement toward the high position it holds as one of the most attractive, law-abiding, "up-to-date towns in New England, possessing educational privileges and the refining influences" of life such as are usually found only in cities, but which are here available without the accompanying evil influences of city life.

Mr. Converse is president of the Winchendon Electric Light and Power Company, treasurer of the New England Baby Carriage Company, director in Granite State Manufacturing Company, president of the New England Lock and Hinge Company, and director in Winchendon Board of Trade, as well as active and prominent in church and society organizations; is a 32° Mason, an Odd Fellow, a member of the I. O. Red Men, also of the G. A. R., and Sons of Veterans; is a member of the Home Market Club, Boston, and the Republican Club, of Massachusetts.

He represented the second Worcester District in the Massachusetts Legislature two terms (1890 and 1891); during this service he was chairman of the House Committee on Banks and Banking, and a member of the Committee on Water Supply.

ALBERT CURTIS.

MR. CURTIS is descended from William Curtis, who came from England to Boston in 1630, and afterwards settled in Roxbury. His grandfather, Samuel Curtis, was a prominent citizen of Worcester in Revolutionary days, and was from 1782 to 1784 a representative from that town. He married Mary Ward, and was by occupation a farmer. Samuel Curtis, Jr., the father of the subject of this sketch, was also a farmer in Worcester, and married Eunice, daughter of Capt. Benjamin Flagg, an officer in the Continental service.

Albert Curtis, son of Samuel and Eunice (Flagg) Curtis, was born in Worcester July 13, 1807. Until he was nine years of age he remained in Worcester, but at that time, his father having died, he went to live with an uncle in Auburn, Mass., and afterwards removed to Tioga County, N. Y., where he lived until the age of seventeen with an older brother, working on the farm during the summer and attending school during the winter. In 1824 he returned to Worcester, and remained until 1830 as apprentice and journeyman in the employ of White & Boyden, manufacturers of woolen machinery in South Worcester. In 1830 he went to Pittsburg, Pa., and spent one year in a machine shop, returning to Worcester in January, 1831, and resuming work in the shop of White & Boyden. Among his companions in the shop were John Simmons and Abel Kimball, and not long after his return he became



Albert Curtis

associated with them in a partnership, under the name of John Simmons & Co., and started at New Worcester a mill for the manufacture of shearing machines, pressing machines, napping machines, and other machinery used in the various departments and processes of making cloth. They took a lease from Lewis Thayer of a privilege on Tatnuck Brook, in New Worcester, and built a machine shop. After a few months Mr. Kimball retired from the firm, and the business was carried on by Simmons & Curtis until 1833, when Mr. Curtis bought out the interest of Mr. Simmons and carried on the business alone for about a year.

In 1834, Mr. Curtis took William Henshaw as a partner, and until January 8th, 1839, the firm name was Curtis & Henshaw. During the continuance of this firm Mr. Curtis bought the privilege, which he had leased from Lewis Thayer in 1831, and on which his machine shop had been built. In 1840 he bought of Clarendon Wheelock the Ramshorn water-privilege, building and satinnet machinery, consisting of two full sets, and, with Alexander Thayer, with whom he was associated for a time, began to manufacture woollens. In 1842 the machine-shop was burned, but at once rebuilt on a larger scale. In that year also he built a factory, which he leased for a time to Sumner Pratt for the manufacture of cotton sewing-thread. He soon acquired an equal interest with Mr. Pratt, and in 1844 bought out Mr. Pratt's interest, and put in looms for the manufacture of cotton sheetings. After some years the cotton-mill was converted into a satinnet-mill. In 1845 Mr. Curtis erected another mill for the manufacture of cotton-sheetings and drillings, and in 1870 this mill was changed to the manufacture of blankets, shawls and other woolen goods. In 1837 Mr. Curtis bought out the wheelwright-shop of E. Graves, and, until 1840, carried on the wheelwright business aside from his other enterprises. In 1852 he bought the Trowbridgeville factory, and, after manufacturing for a time cotton-sheetings, he suffered the loss of the mill by fire in 1860. This mill was rebuilt and fitted like his other cloth-mills for the manufacture of woolen goods. In 1864, Edwin T. Marble became associated with him in the machine-shop, but after some years the tools and machinery of the shop were sold, and the connection with Mr. Marble ceased. The product of the machine-shop, while under the control of Mr. Curtis, consisted largely of machines for shearing cloth. Up to the time when Mr. Curtis began the manufacture of these machines, the French shearing machine had been exclusively used in the United States. One of these foreign machines was sent to Mr. Curtis from Pawtucket for repairs, and, while repairing it, he discovered opportunities for great improvements, and, applying these improvements to a new machine, under his direction the first American shearing machine was made.

In 1880 the three cloth mills with which Mr. Curtis was connected were incorporated under the name of the Curtis Manufacturing Company, of which, from the beginning, he has been president and treasurer. The product of the company, as has been stated, consists largely of blankets and shawls, and finds its way into all the business channels of the northern states. The business of the corporation has been uniformly prosperous, and Mr. Curtis has found ample reward for the labors of his life in the accumulation of a deserved and abundant wealth.

Mr. Curtis has never been seduced into the paths of politics, but has always given his best thought to the business under his immediate control. Like every good citizen, he has, of course, been interested in the management of municipal affairs, and was a selectman of Worcester before its organization as a city, and a member of the common council and board of aldermen afterwards. He has also been a director in the Central National Bank in Worcester, and in the Street Railway Company of that city, and vice-president of the Worcester Society of Antiquity. He has found relief from business cares, and his chief pleasure, outside of his factory

and his home, in the cultivation of his farm containing many acres of choice land. His political creed is that of the Republican party, and his religious affiliations are with the Trinitarian Church, of which he has been a member since 1828.

Mr. Curtis married, first, in October, 1833, Sally Houghton, widow of Charles Griffin, of Sterling, and second, in 1880, Rosella B. (Ferrin), widow of Rev. David Bancroft. He is now nearly ninety years of age, with a mind still vigorous and strong, and though less active in the management of the company, he still keep a careful and shrewd oversight over its affairs.

CHARLES HILL MORGAN.

IN 1636, three brothers, James, John and Miles Morgan, came from Wales to Boston. James settled in Connecticut, John in Virginia, and Miles joined William Pynchon in the first settlement of Springfield, Mass. Charles Hill Morgan is descended from Miles Morgan in the eighth generation. His grandfather, Calvin Morgan, lived in Springfield, and married Polly Forbush. He died in Springfield in 1832, and his widow died in the home of a daughter in Clinton, Mass., in 1868. Hiram Morgan, son of Calvin, was born in Springfield, and was a mechanic. He at one time moved to Michigan, but returned to Massachusetts, and settled first in West Boylston, and afterwards in Clinton. He married Clarissa Lucina, daughter of Dr. Noah Rich, of Penfield, N. Y., and had four sons and one daughter, Charles Hill, Francis Henry, Hiram Dexter, Cyrus Rich and Harriet Eaton. He died in Worcester in 1868, and his widow died in Clinton in 1854.

Charles Hill Morgan, the subject of this sketch, was the oldest son of Hiram and Clarissa Lucina (Rich) Morgan, and was born in Rochester, N. Y., January 8, 1831, his father having for a time been engaged in his trade in that city. At the age of six years, in 1837, he went with his father to Marshall, Michigan, where he remained eighteen months. In 1838 he returned to Massachusetts, and lived a few years in West Boylston, where he attended the public schools. In 1843 his father removed to Clinton, and in the public schools of that town, and at the Lancaster Academy his education was finished. In 1846 he entered the machine shop of his uncle, J. B. Parker, in Clinton, and while there took lessons of John C. Hoadley, the civil engineer of the Clinton Mills, in mechanical drawing. In 1852 he was made superintendent of the Clinton Mills dye-house, and, in connection with his work in that position, spent much time in the study of chemistry.

At a later date, he was for a time draughtsman for the Lawrence Machine Company, and from 1855 to 1860 filled the same position in the employ of Erasmus B. Bigelow, the great inventor and manufacturer. In 1860, he was associated with his brother, Francis Henry Morgan, in the manufacture of paper bags in Philadelphia, and in 1864 was selected by Ichabod Washburn, of Worcester, for the position of superintendent of his works for the manufacture of wire. Mr. Washburn was then the senior member of the firm of Washburn & Moen, but in 1868 the firm was organized and incorporated under the name of Washburn & Moen Manufacturing Company, of which Mr. Morgan was made general superintendent. His early mechanical education was further advanced by a personal examination of the mills of England, Belgium, Germany, France and Sweden, and under his hands the operations of the corporation were in many important ways improved and perfected. His services as superintendent were so highly appreciated that in 1876 he was made a member of the board of directors, a position which he held until he severed his connection with the corporation in 1887.

Under the direction of Mr. Morgan, the continuous rolling process in the manu-



Chas. H. Morgan

facture of wire was introduced into the Washburn & Moen Mills, and the Bedson Mill, first used, received at his hands important improvements, which were patented by the company. Without entering into a detailed description of the continuous process, it is sufficient to say that it is a process, by which the iron rod passes through one section of rollers and is led through twisting guides automatically through a second section and so on through sections, until the wire is reduced to its desired size.

In 1868, Mr. Morgan designed the first hydraulic elevator in New England, which was built for a new annealing furnace in the Washburn & Moen works. In 1881 he organized the Morgan Spring Corporation, of which he has ever since been president, and his brother, Francis H. Morgan, treasurer. The works of this corporation are located in Worcester, and employ about eighty hands. He has also organized the Morgan Construction Company, whose machine shop and foundry are in Worcester, and which employs about fifty hands. Of this company Mr. Morgan is both president and treasurer. This company since it went into operation has built a rolling mill for the American Wire Company in Cleveland, O., a rolling mill for the Superior Barb Wire Company in De Kalb, Ill., two rolling mills for Jones & Laughlin in Pittsburg, Pa., on the continuous plan, a rolling mill for the Oliver Iron and Steel Company in Pittsburg, a rolling mill for the Junction Iron and Steel Company in Mingo Junction, O., and the Hope Rolling Mill for the Union Iron and Steel Company in Youngstown, O.

Mr. Morgan is also largely interested in the American Wire Company of Cleveland, and is its vice-president and chairman of the Executive Committee, which has the managing direction of the company affairs. This company employs about fifteen hundred hands and is one of the most important of its kind in the United States. But he has not confined his attention to the industries to which reference has been made. He has been a director in the First National Bank of Worcester, and has served as an officer of Pilgrim Congregational Church during a full term, limited by the rules of the church to six years. He is also a trustee of the Worcester Polytechnic Institute. In March, 1888, Ichabod Washburn, of Worcester, made a gift to establish a machine shop and a working machinery department in the Worcester County Free Institution of Industrial Sciences, now known as the Polytechnic Institute. This department was to be not only a school, but a thorough business establishment. Mr. Washburn died before its completion, and before his death placed its completion and equipment in the hands of Mr. Morgan. Since it went into operation Mr. Morgan has been closely associated with its management and has secured for it a success, which by many was considered doubtful at the time of its establishment. Of the service rendered by him Hon. George F. Hoar, one of the trustees, says :

"I regard the service of Mr. Charles H. Morgan as one of the most important benefactions ever conferred upon the people of Worcester. When Deacon Washburn endowed the machine-shop, connected with the Worcester County Free Institution of Industrial Sciences, now known as the Polytechnic Institute, everybody who took an interest in that shop felt the gravest anxiety as to the result. Deacon Washburn was getting to be an old man, and his health was feeble. So far as the trustees were informed, there had been no institution in this country, and very few in the world, where an institution of education had conducted profitably a manufacturing establishment unless the work was of the simplest and cheapest character. To undertake the management of a machine-shop requires a high degree of skill, and to make costly and complicated machinery, such as engine-lathes, was a most hazardous experiment.

"Deacon Washburn recommended to the trustees to elect Mr. Morgan as one of their associates, with the expectation that he would give the shop the benefit of his great mechanical genius and large experience.

"Deacon Washburn died before the establishment was fully under way. Mr. Morgan's sagacity, his constant over-sight, his inventive genius, and his great business capacity, have been constantly at the service of the school. The work-shop has been entirely successful, and is now recognized everywhere as a most important and valuable part of the institute. Its plan has been

copied far and near. I will not say that no other person could have been found, under whose guidance that shop would have been successful, thereby contributing the largest part of the success of the school itself, but I have never known or heard of a person who would have done it, and certainly what has been done there is largely his work."

Mr. Morgan married first January 8, 1852, Harriet T. Plympton, who died July 10, 1862. He married second August 4, 1863, Rebecca, daughter of John and Kesiah (Carter) Beagary.

By his first wife he had Charles Henry, born February 1, 1854, and Hiram P., born July 6, 1862. By his second wife he had Harriet, who married Dr. Winthrop D. Mitchell, of East Orange, N. J.; Charlotte, who married Frederick M. McFadden, of Philadelphia; Paul, who married Lessie Maynard, of Worcester, and Ralph. Paul is a director in the Construction Company, and the other three boys are employed in the works.

CHARLES HEYWOOD.

IT is difficult to delineate with accuracy the character and life of Mr. Heywood without appearing to those beyond the limits of his acquaintance and influence to speak in terms of exaggeration. These words, however, are chiefly addressed to those who felt it a privilege to know him as a citizen, a neighbor and a friend, and to such almost any eulogy would seem inadequate and weak. Certainly no man has ever walked the streets of his native town of Gardner, Mass., the recipient of a fonder love of its citizens, or left the scenes of earth with more affectionate tributes to his memory.

Charles Heywood was descended from pure Puritan stock, and the blood of John Heywood, his first American ancestor, who settled in Concord, Mass., before 1650, ran in his veins. Of a second John Heywood, the son of the ancestor, little is known, except that he lived and died in Concord, and was esteemed as a deacon of the church and a worthy citizen. Phineas Heywood, son of the second John, was better known, not perhaps because he was a man of stronger character or greater natural ability, but because he lived in times which made heavier drafts on a man's intellectual resources, and brought into action those forces of his nature which had been before latent and unknown. He was born in Concord in 1707, and in 1739 removed to Shrewsbury, Mass. He was a selectman in Shrewsbury, a member of the Provincial Congress, and of the Committee of Correspondence and Safety. His son, Benjamin Heywood, born in Shrewsbury in 1746, learned the trade of carpenter, but finally entered Harvard College, and graduated in 1775. Inspired by the patriotism of his father he entered the service, and passed through the War of the Revolution, beginning as captain, and closing his military career as colonel. After the war he established himself in Worcester in the practice of law, and from 1802 to 1811 served as judge on the bench of the Court of Common Pleas for Worcester county. The late Dr. Benjamin F. Heywood, of Worcester, was his son. Seth Heywood, a brother of the above Benjamin, and another son of Phineas, was born in Shrewsbury in 1738, and was a year old when his father removed to Shrewsbury.

In 1762 he married Martha Temple of Shrewsbury, and not far from 1770 bought a farm on the borders of Ashburnham and Westminster, where following the occupation of blacksmith as well as farmer, he spent the remainder of his life, except when, as a lieutenant, he served in the War of the Revolution. When the town of Gardner was incorporated in 1785, his farm was included within its limits, and covered that territory now occupied by the Common, the Windsor House, the First Congregational Church and the adjacent burial ground. He was one of the petitioners for the act of incorporation, and was chosen the first clerk of the town. He died in



Chs: Heywood

Gardner in 1827. Benjamin Heywood, son of Seth and Martha (Temple) Heywood, was born on the above farm, and at his father's death came into its possession. He was prominent in the management of local affairs, and was many years treasurer of the town. He married Mary, daughter of William Whitney of Winchendon, and died in 1849. His children were Levi; Benjamin F.; Walter; William; Seth and Charles. Levi Heywood, of whom a sketch may be found in another part of the work, was born in Gardner, Dec. 10, 1800, and died in that town July 21, 1882. He married Martha, daughter of Joseph and Rebecca (Nichols) Wright of Gardner, and had four children, Calvin, Charles, Solon and Helen.

Charles Heywood, the second son of Levi and Martha (Wright) Heywood, was born in Boston, Nov. 12, 1831. At the time of his birth his father was carrying on a store in Boston for the sale of chairs. In 1836 he removed to Gardner with his father, and after passing through the public schools of that town was for a time a pupil at the Academy in Fitchburg. After leaving the Academy, he entered the office of E. D. Brigham & Co., commission merchants, located at the foot of State street in Boston, and was there initiated into the methods essential to the successful pursuit of a business career. Elijah D. Brigham, the head of the firm, was a brother of the late Lincoln Flagg Brigham, many years Chief Justice of the Superior Court, and was a man whose accurate business habits and sterling integrity of character made him a model which a young man could follow with safety and profit.

In 1850 his father, associated with Seth Heywood, his brother, Calvin Heywood, his son, and Henry C. Hill, was carrying on the business of chair manufacturing in Gardner under the firm name of Levi Heywood & Co., and, an opportunity offering, he left the office of E. D. Brigham & Co., and at nineteen years of age entered the employ of that firm. In 1851 the firm was organized as a joint stock corporation which continued until after the burning of its shops in 1861, when it was dissolved. Entering the establishment of Levi Heywood & Co., in 1850 as clerk, he looked beyond the range of his daily duties in that capacity, and applied himself to the study of all the processes and practical workings of the industry in which his employers were engaged. So successful was he in mastering the business, and in acquainting himself with its needs and opportunities, that during the last years of the joint stock corporation he was placed in charge of the Boston department of the establishment to look after the sales of chairs and the purchase of some of the necessary supplies. During his Boston career he made the town of Winchester his home, and in 1861 was a representative from that town.

In 1862 a new firm was organized, and the factory was rebuilt. This firm, of which he became a member, consisted of his father Levi, his uncle Seth, himself and Henry C. Hill, and assumed the name of Heywood Brothers & Co. Under the new firm he continued in charge of the Boston department until 1866, when he returned to Gardner, and from that time made that place his home. In 1868 both he and Henry C. Hill retired from the firm, and their places were taken by Henry and George Heywood, sons of his uncle Seth. Soon after, Calvin M. Greenwood, son-in-law of his father Levi, and Amos Morrill, son-in-law of Benjamin F. Heywood, who had died several years before, entered the firm, and in 1876 he re-entered it. At that date the firm of Heywood Brothers & Co. consisted of Levi Heywood, Seth Heywood, Charles Heywood, Henry and George Heywood, Calvin M. Greenwood and Amos Morrill, and so remained until the death of Charles Heywood, the subject of this sketch, which occurred June 24, 1882. Before the end of the year of his death his interest in the firm was sold to Mr. Morrill, and consequently the further history of the firm has no place in this sketch. It has been stated by one qualified to judge that "he was the ablest financier in the northern part of Worcester County."

Where so many able men have been engaged in building up the great enterprise of Heywood Brothers & Co., it is difficult to trace the work of each, but it may be safely stated that Charles Heywood, during his connection with the firm, was far from being a silent member.

The interests and tastes of Mr. Heywood were not confined to his personal business. He was a man of public spirit, who looked beyond the ruts of business life, and was keenly alive to every opportunity to promote the welfare of the community in which he lived. During his short residence in Winchester the fine traits of his character were discovered, and he was selected, as has been stated, to represent that town in the Legislature of 1861. He was again chosen representative from Gardner in 1868, and was repeatedly nominated by the Democrats for Congress and the state Senate. He was at different periods selectman, a member of the school committee and town treasurer, and was an active mover in the project for establishing a system of water-works, and in that for founding a public library. He was chairman of the building-committee for erecting the meeting-house of the First Congregational Society, and the successful consummation of that enterprise was largely due to his efforts and influence. At the organization of the Gardner Savings Bank, in 1868, he was chosen president, and in 1872 succeeded Amasa Bancroft as the president of the First National Bank. He was also active in the movement which resulted in the construction of the Boston, Barre and Gardner Railroad, and after serving as vice-president, succeeded Col. Ivers Phillips, of Worcester, in the presidency.

Owing to the interest which Mr. Heywood had felt in the establishment of a public library, his widow and children felt, at the time of the gift to the Gardner Library Association, by the widow and surviving children of Levi Heywood of a library building, that an opportunity was offered to pay an appropriate tribute to his memory. The opportunity was improved, and Mrs. Fannie B. Heywood, the widow of Charles, and Mary W. Stratton, Martha W. Heywood, and Charles Heywood, his children, gave to the above association, now called the Levi Heywood Memorial Library Association, an endowment fund to constantly furnish and supply a reading-room with the usual reading matter, said room to be known as the "Charles Heywood Memorial Reading Room."

Mr. Heywood married Fannie B., daughter of Charles and Mary (Learned) Hayward, and his children are Mary W., who married Herbert Stratton; Martha W., who married Charles C. Burrage, and Charles, who married Daisy P. Bradford.



LEVI HEYWOOD.

THOUGH James M. Comee may be considered the father of the business of chair manufacturing in Gardner, Mass., to Levi Heywood the credit must be accorded of devising, and constructing, and introducing different kinds of wood machinery applicable to the business, and thus giving to the industry a new life, and inaugurating a new era in its career.

Mr. Heywood is descended from John Heywood, who came from England prior to 1650 and settled in Concord, Mass. Phineas Heywood, son of John, born in Concord in 1707, removed to Shrewsbury, Mass., where he became prominent in public affairs, having been a selectman, a member of the Provincial Congress, and of the Committee of Correspondence and Safety in that town. Benjamin Heywood, son of Phineas, born in 1746, was a captain and paymaster in the War of the Revolution, was present at the surrender of General Burgoyne, and from 1802 to 1811 was a justice on the bench of the Court of Common Pleas, for Worcester county. Seth Heywood, a brother of the above Benjamin, and the grandfather of the subject of this sketch, was born in Worcester, in 1737, and removed with his father to Shrewsbury. He married



Levi Heywood

Martha Temple, of Shrewsbury, and afterwards bought a farm on the borders of Ashburham and Westminster. When the town of Gardner was incorporated in 1785, his farm was included in the new town, and he was its first town clerk and treasurer. He died in 1826. Benjamin Heywood, son of Seth, born in Lancaster, July 10, 1773, married Mary, daughter of William Whitney, of Winchendon, and inherited his father's farm. He was many years treasurer of the town of Gardner, and died in 1849, in his seventy-seventh year. The lands he owned and cultivated included the larger part of that territory now occupied by the town hall, hotel, church, and burial-ground, together with some of the intervening streets. He had six sons, Levi, Benjamin F., Walter, William, Seth and Charles.

Levi Heywood, son of Seth and Mary (Whitney) Heywood, was born in Gardner, Mass., December 10, 1800. He was educated at the public schools in Gardner, and at the academy in New Salem, Mass., and, before entering on a business career, taught school three winters in Gardner and Winchendon. In 1822 he went to Rochester, N. Y., and for a single year engaged in the work of stone-cutting. In 1823 he associated himself with his brother, Benjamin F. Heywood, in keeping a country store in Gardner, and continued in that business until 1829, devoting his time chiefly, however, after 1826 to the manufacture of wooden-seated chairs. He pursued the chair business, after his abandonment of the store, until 1831, when he went to Boston, and opened a store for the sale of chairs, continuing in that business until 1836. While keeping the store, he formed a partnership in 1835 with his brother William and William R. Carnes, under the firm-name of Heywood & Carnes, and began in Charlestown the business of sawing veneers from mahogany and other woods. Before the expiration of the year 1835 the veneer-mill was burned, and Mr. Heywood returned to Gardner, retaining, however, his interest in the rebuilt mill until 1849.

On his return to Gardner, he entered the firm of B. F. Heywood & Company, a firm which, at that time, had been successfully launched in the chair-making business. The business of this firm was begun in 1826 by Walter Heywood, a brother of Levi, in a small shop, standing in his father's yard, on the site now occupied by the town hall. Walter finally associated with himself his brothers, Benjamin F. and William, together with Moses Wood, of Gardner, and James W. Gates, of Boston, and, at the time of the return of Levi from Boston, was operating under the firm-name of B. F. Heywood & Company, above mentioned. At that time the manufacture of chairs was carried on chiefly by hand, the only machinery being the ordinary turning lathes and circular saws operated by water-power. In 1837 the partnership was dissolved, and the three Heywood brothers continued in the business alone. It was at this period that he exhibited the skill and ingenuity, which gave a new impetus, not only to the business of the firm, of which he was a member, but also to that of all others engaged in the industry. In 1841 he became convinced that machinery, specially adapted to the various processes of manufacture, might be introduced, and so urgently advised its use that his brothers, whose habits of thought and methods of business were more conservative, became fearful of his leadership, and sold out to him their interest. The idea of a band-saw was a favorite one with him, and, though not originated by him, had not then reached a practicable stage.

After the dissolution of his partnership with his brothers, he carried on the business alone until 1844. In that year he associated himself anew with Moses Woods, one of the members of the old firm of B. F. Heywood & Company, and his brother, Seth Heywood, under the firm-name of Heywood & Wood. Mr. Wood retired in 1847, and Calvin Heywood, son of Levi, and Henry C. Hill entered the firm, under

the style of Levi Heywood & Company. In 1851 the firm was organized as a joint stock corporation, to which employees were admitted upon subscription to its capital, and which was known as the Heywood Chair Manufacturing Company. In 1861 the factories of the company were burned, and the company or corporation was dissolved.

In 1862, a new firm was organized, consisting of Levi Heywood, his brother Seth, his son, Charles, and Henry C. Hill, under the firm-name of Heywood Brothers & Co. In 1868, Charles Heywood and Henry C. Hill retired, and Henry and George Heywood, sons of Seth Heywood, became members of the firm. At a later period, Alvin M. Greenwood, son-in-law of Levi Heywood, and Amos Morrill, son-in-law of Benjamin F. Heywood, were admitted to the firm, and in 1876, Charles Heywood re-entered the partnership, and remained until his death, which occurred June 24, 1882. During these various changes, the firm-name of Heywood Brothers & Co. continued, and was still in use when Levi Heywood died July 20, 1882, about a month after his son Charles.

Mr. Heywood was connected with other enterprises besides his chair business in Gardner. In 1847, he formed a partnership with Wm. B. Washburn, of Greenfield, Mass., and engaged with him under the firm-name of Washburn & Heywood in the manufacture of chairs and wooden ware in Erving, Mass. The firm owned three thousand acres of land in Erving, Northfield and New Salem, and dealt largely in lumber.

A careful study of the processes of chair manufacture led Mr. Heywood to display his ingenuity in the invention of machines calculated to facilitate his work, and of new methods and styles of manufacture. Among these were one for a wood chair-seat, one for a tilting chair, three for machines for splitting and shaving rattan and four for machinery for bending wood. Under the impetus given to the business of the firm by the skill and energy of Mr. Heywood the little shop of Walter Heywood, which in 1826 turned out a few chairs, which he carted himself to Boston and other markets, has proved the seed from which the present establishment of Heywood Brothers & Co. has grown, sending to the markets of the world an annual product of over \$3,000,000.

Mr. Heywood was not permitted to devote his time and energies exclusively to his personal affairs. He was a director in the Gardner National Bank, a trustee in the Gardner Savings Bank, a representative in 1871 and a member of the Massachusetts Constitutional Convention in 1853. He was a liberal contributor to the support of the Congregational church, and did much for the cause of education by gifts to the town for educational purposes. He married Martha, daughter of Joseph and Rebecca (Nichols) Wright, of Gardner; (the first of whom was a native of Sterling), and had four children: Charles, who died June 24, 1882; Solon, who died August 6, 1883; Calvin, who died December 13, 1886, and Helen, who married Alvin M., son of James H. and Adeline (Cowee) Greenwood, of Gardner. Mr. Greenwood was a member of the firm of Heywood Brothers & Co., a director in the First National Bank of Gardner, and vice-president and member of the board of investment of the Gardner Savings Bank.



With Keynotes

SETH HEYWOOD.

AMONG those who have been prominently connected with the manufacture of chairs in Gardner, Mass., is the subject of this sketch. During a period of forty years he was a partner in the firm, which under the various names of Heywood & Wood, Levi Heywood & Company, and Heywood Chair Manufacturing Company, is now doing business under the style of Heywood Bros. & Company, and sending its product, not only into markets of every state in the Union, but also into many in other quarters of the globe. Though now retired from active partnership in the management of the business of the firm, he is still, at the age of eighty-three, its wise and trusted counsellor.

Mr. Heywood is descended from John Heywood, who came to New England before 1650, and settled in Concord, Mass. John Heywood, son of the above John, was a prominent man, and had a son, Phineas, who was born in Concord in 1707, and removed to Worcester, and thence to Shrewsbury in 1739. Phineas Heywood was a selectman, a representative in the Provincial Congress and a member of the committee of Correspondence and Safety. Seth Heywood, son of Phineas, was born in Worcester, December 4, 1737, and married, in 1762, Martha, daughter of Isaac and Mary Temple, of Shrewsbury. He was a farmer and blacksmith, and served as lieutenant in the Revolution, being at that time a resident of the town of Lancaster. After the war he bought a farm on the borders of Ashburnham and Westminster, which was included within the limits of Gardner on the incorporation of that town in 1785. The larger part of the town-hall lot, the burial-ground, and hotel lot, and some intervening streets in Gardner, are parts of the old Heywood farm. Mr. Heywood took an active part in securing the incorporation of the town, and was its first clerk and treasurer.

Benjamin Heywood, son of Seth and Martha (Temple) Heywood, was born in Lancaster, July 10, 1773, and was the treasurer of the town of Gardner many years, and died in 1849. He inherited the farm of his father, and married Mary, daughter of William Whitney, of Winchendon, Mass. His children were Levi, Benjamin F., Walter, William, Seth and Charles.

Seth Heywood, son of Benjamin and Mary (Whitney) Heywood, was born in Gardner, November 12, 1812. His grandfather, William Whitney, was a prominent citizen of Winchendon, and represented that town in the Massachusetts General Court in 1803, 1805, 1806, 1807 and 1808.

Mr. Heywood received his education in the district schools of his native town, and until he was twenty years of age assisted his father on his farm. In 1832, the year before he attained his majority, he entered the employ of B. F. Heywood & Co., a firm consisting of Walter Heywood, B. F. Heywood, William Heywood and Moses Wood, of Gardner, and James W. Gates, of Boston, and extensively engaged in the manufacture of chairs. He continued in the employ of the above firm and of his brother Levi, who for a time carried on the business alone, until 1844, when he became a member of the firm of Heywood & Wood, consisting of Moses Wood, his brother Levi and himself. In 1847 Mr. Wood retired, and Calvin Heywood, son of Levi, and Henry C. Hill came into the firm, which continued business under the style of Levi Heywood & Co. In 1851 the firm became organized as a joint stock corporation under the name of the Heywood Chair Manufacturing Company, to which the employees of the company were admitted upon subscription to its capital. In

1861 the mills of the company were burned, and the company was dissolved. In 1862, after the mills had been rebuilt, a new firm was organized under the name of Heywood Brothers & Co., consisting of Levi and Seth Heywood, Charles Heywood, son of Levi, and Henry C. Hill. In 1868 Charles Heywood and Henry C. Hill retired, and Henry and George Heywood, sons of Seth, the subject of this sketch, became members of the firm. At a later date, Alvin M. Greenwood, son-in-law of Levi Heywood, and Amos Morrill, son-in-law of Benjamin F. Heywood, who had died some years before, entered the firm, and in 1876 Charles Heywood re-entered it, remaining until his death, June 24, 1882. Levi Heywood died July 21, 1882. Soon after the death of Levi Heywood, Seth Heywood retired from the firm, and the year 1883 opened with its composition of four members, Henry Heywood, George Heywood, Alvin M. Greenwood and Amos Morrill. Through all the changes above enumerated the style of the firm continued to be Heywood Brothers & Co. Its career after the retirement of the subject of this sketch it is unnecessary to trace here. It will be found in the sketch of Henry Heywood, who is still in the firm, and its leading member.

Mr. Heywood has received, as he deserved, the confidence of his fellow-citizens, and been repeatedly called by them to positions of trust and honor. He was for several years treasurer of Gardner, and has been since the organization of the First National Bank, of Gardner, in 1865, and of the Gardner Savings Bank, in 1868, respectively a director and trustee. In 1860 he was a representative to the General Court, chosen, not only by the votes of the Democratic party, of which he is a member, but by the added assistance of many of his political opponents. He is a respected and active member of the First Congregational parish, and is a generous contributor to its support. His liberality, however, extends beyond the limits of his society, and his warm heart and open hand are always ready to respond both in the aid of the needy, and in the promotion of any measure calculated to advance the moral, social and intellectual welfare of his town.

Mr. Heywood married, February 11, 1835, Emily, daughter of Joseph and Rebecca (Nichols) Wright, of Gardner, the sister of the wife of his brother Levi. He has the following children: Henry, born June 25, 1836, who married Martha, daughter of Seth Heywood and Phebe Jackson Temple; George, born January 3, 1839; Francis, born March 12, 1847; Mary, born April 3, 1852, and deceased April 5, 1852; and Mary E., born December 26, 1853, who married Howard L. Ballard.

AMOS MORRILL.

IN February, 1642, new style, there were granted to Abraham Morrill and Henry Sayward, by the town of Salisbury, Mass., "three score acres of upland, so near the falls as may be convenient, on the condition that they shall, before October next, set up a mill, which may be sufficient to grind all the corn which the town shall need." Abraham Morrill was the American ancestor of the subject of this sketch, and, before going to Salisbury, had lived in Cambridge. By a wife, Sarah, he had eight children, one of whom was Jacob, born August 24, 1648. Aaron Morrill, son of Jacob, was born about 1680, and married Joanna Heath, by whom he had a son, Aaron, born in 1723. Thomas Morrill, son of the second Aaron, born January 8, 1776, married Polly Eastman, and had Amos, born in Salisbury, May 10, 1790, who married Mary Ann, daughter of Henry and Lovisa Coolidge, of Salisbury, and settled in the suburbs of Boston. Amos Morrill was an enterprising business man,



Frederic Merrill

possessing much inventive skill and superior administrative ability, but at the early age of thirty-three years he was stricken down by an attack of apoplexy, and thus died at the threshold of a promising career. Mary Ann Morrill, the widow of Amos, after the death of her husband, moved to Westminster, Mass., where she lived until her children arrived at mature age, when she removed to Cambridge, where she died.

Amos Morrill, the subject of this sketch, was the son of Amos and Mary Ann (Coolidge) Morrill, and was born in Boston, Mass., February 4, 1836. He received his early education in the public schools of Westminster, to which place his widowed mother removed in his infancy, and in his later youth attended school in Worcester. In his early manhood he was for a time associated as partner with Abel S. Wood in a general country store in Gardner, Mass., and afterwards engaged with others in the manufacture of lumber in Irving and Wendell, Mass. One of his associates in this business was Henry Heywood, of Gardner, and with him he afterwards carried on the same business in South Vernon, Mass. Mr. Heywood was a young man of the same age as Mr. Morrill, and, having been clerks together in the store of Mr. Wood, each had learned to appreciate the good qualities of the other and to place entire confidence in each other's integrity and business qualities. At that time the firm of Heywood Brothers & Co. was carrying on a large business in the manufacture of chairs in Gardner. This firm, which had taken the place of the Heywood Chair Manufacturing Company, which was dissolved in 1861, consisted of Levi Heywood, Seth Heywood, Charles Heywood, and Henry C. Hill. Henry Heywood was made foreman of their factory, and continued in that position until 1868, when, with his brother, George Heywood, he became a partner, and Charles Heywood and Mr. Hill retired. In the mean time, Mr. Morrill married a daughter of Benjamin F. Heywood, and in 1870, with Alvin M. Greenwood, a son-in-law of Levi Heywood, was made a partner, and removed to New York to take charge of the business of the firm in that city. In 1876 Charles Heywood re-entered the firm and remained until his death, June 24, 1882. Levi Heywood died July 21, 1882, and soon after Seth Heywood retired, leaving the firm composed of Henry and George Heywood, Alvin M. Greenwood and Mr. Morrill. In 1887 George H. Heywood, son of Henry, took the place of George Heywood, and took charge of the company's warehouses and business in Boston. In 1888 Calvin H. Hill, son of Henry C. Hill, and John D. Walsh, of the New York branch, were admitted, so that at the time of Mr. Morrill's death in 1891, the firm was composed of Henry Heywood, Amos Morrill, George H. Heywood, Alvin M. Greenwood, John D. Walsh and Calvin H. Hill. After the death of Mr. Morrill, his widow, Mary A. Morrill, became a partner, and, after the death of Mr. Greenwood in 1892, his son, Levi H. Greenwood, was admitted, so that at this date, 1896, the firm of Heywood Brothers & Co. consists of Henry Heywood, George H. Heywood, Levi H. Greenwood, Mary A. Morrill, John D. Walsh and Calvin H. Hill.

The large business now carried on by the firm has been evolved from a concern of the smallest significance. It was begun by Walter Heywood, in 1826, in a small shop standing in the yard of his father's house in Gardner, in which with a single foot lathe the various processes of manufacture were carried on by hand. It is now carried on, so far as the town of Gardner is concerned, in buildings containing about eight acres of floorage by the employment of about thirteen hundred persons, whose annual pay-roll is more than a million of dollars. Besides the Gardner factory there are others operated by the firm in San Francisco and Chicago, and stores and warehouses are now located in Boston, New York, Philadelphia, Baltimore, San Francisco, Los Angeles, Cal., Portland, Oregon, and Chicago. The successful expansion

of the business of the firm was largely due to the energy and skill of Mr. Morrill. His methods were always progressive, and by anticipating the wants of the trade, which his keen eye was sure to foresee, his concern would often hold the market in the supply of new patterns and devices, while many other manufacturers were following in the wake of the demand.

Until his death his home continued in the city of New York, though to the last he retained his deep interest in the town of Gardner, where he had bought a considerable tract of land with the view of erecting an elegant mansion and making it his permanent residence. He married Melissa M., daughter of Benjamin F. Heywood, of Gardner, who died in 1865, leaving a son Frank, who died in November, 1884, at the age of twenty-two. He married for a second wife Mary A., daughter of Charles A. Thomas, of New York city, and died at the residence of Henry Heywood, in Gardner, September 3, 1891, survived by a widow and six children. The funeral services were held at the home of Mr. Heywood on the following Sunday, and attended by representatives of the different business houses of Heywood Brothers & Co., from New York, Chicago, Baltimore, Philadelphia and Boston, and large numbers of the people of the town, who were assembled to pay their respect to his memory. Thus passed away a man respected, trusted and beloved by all who knew him, the loving husband, father, brother, friend. He was a man of commanding presence, courteous address, kind disposition and in everything upright and honorable. It has been said of him that "he was a brave and tender man, in the storm of life like the oak and the rock, and in the sunshine a vine and flower." The memory of such a man is like a lingering fragrance sweet and chastening. The extent of the influence of his character and life no man can measure. His widow resides in East Sixty-seventh street, New York, near Fifth avenue and Central Park, and is an active leader in enterprises having for their object the social and moral elevation of the community.

HENRY HEYWOOD.

AMONG those who have aided in making the town of Gardner, in the state of Massachusetts, distinguished for its chair manufacture, Henry Heywood has been prominent. Though neither one of the founders of that industry nor associated with it in its early years, he entered so effectively into the labor of others as to be largely instrumental in enlarging to its present magnitude the establishment of Heywood Brothers & Co., of which he is the senior member. In the prime of life, surrounded by those of his own blood, who are living in the enjoyment of wealth, happy himself in the possession of an abundant store, he is still devoting his skill and energies to the further development of the business, which he inherited from those of his family of a former generation, with a certainty that it will be transmitted not only unimpaired, but aggrandized, to those who shall follow him.

Mr. Heywood is descended from John Heywood, who came to New England, where he settled in Concord, Mass., prior to 1650, and was married in 1656 to Rebecca Atkinson. Among his children was John, born April 5, 1662, a deacon of the church, who was known by the title thus acquired; he was a man of character and influence and held numerous positions of honor and trust in the town; he married about 1686, and had eleven children, two of whom, Daniel and Phineas, settled in Worcester prior to 1732, and the latter subsequently removed to Shrewsbury between 1737 and 1740. Phineas Heywood was born in Concord July 18, 1707, and



Henry Heywood

died in Shrewsbury on March 20, 1776. He was many years selectman and representative, was delegate of the first Provincial Congress, and was one of fifteen grand jurors who in April, 1774, refused, and, in a writing by them signed and presented to the associate justices of the S. J. Court at Worcester, protested against being empaneled if Chief Justice Oliver should be present on the bench. He was also one of the town committee for enforcing the recommendations of the Provincial Congress as to non-consumption of British goods, and was one of the town's committee of correspondence in 1774 and 1775, but lived only to enter upon that perilous contest that soon after followed. He was, however, well represented in the service during the Revolution, no less than four of his sons,—Seth, Timothy, Levi and Benjamin,—having served to a greater or less extent in the army, the last-named serving as a captain throughout the war, and was subsequently (1802–1811) a judge of the Court of Common Pleas for Worcester county.

Seth Heywood, the fourth child and eldest son of Phineas Heywood and his wife Elizabeth (Moore), was born in Worcester on December 4, 1737, and was taken by his father's removal, to Shrewsbury about 1739, where he was married, August 24, 1762, to Martha, daughter of Isaac Temple of the same town. Isaac Temple was also many years selectman and representative, and served with Phineas Heywood as a member of the town's Committee of Safety. Settled in what was known as "Shrewsbury leg," then a part of Lancaster, but now included in the town of Sterling, and removed about 1777 to Westminster, purchasing land in what is now the central village of the town of Gardner, of which latter town he was one of the chief promoters, and became on its incorporation its first clerk and treasurer. He died in Gardner August 24, 1826. During his residence in Lancaster Seth Heywood was serving as first lieutenant in Capt. Ephraim Richardson's company of Col. Asa Whitcomb's regiment of the Worcester county militia, and in that capacity responded to the alarm following the Lexington and Concord fight, and was in service until the following October. He died in Gardner.

Benjamin Heywood, seventh child and younger son of Seth and Martha (Temple) Heywood, was born in Lancaster July 10, 1773, and removed with his father to what is now Gardner about 1777. He inherited his father's farm, which included the present site of the town hall, the Windsor House, the common, the lot of the First parish, and the town burial ground adjacent to same. He was a farmer by occupation, was repeatedly elected treasurer of the town, was many years one of its most respected citizens, and died in Gardner February 14, 1849. He married Mary, daughter of William Whitney, of Winchendon, and had six sons: Levi, Benjamin Franklin, Walter, William, Seth and Charles.

Seth Heywood, son of Benjamin and Mary (Whitney) Heywood, was born in Gardner November 12, 1812, and married Emily, daughter of Joseph and Rebecca (Nichols) Wright, of Gardner. His children were: Henry, born June 25, 1836; George, born January 3, 1839; Frances, born March 12, 1847; Mary, born April 3, 1852, who died in infancy; and Mary E., born December 26, 1853. (An extended sketch of Seth Heywood may be found elsewhere in this work.)

Henry Heywood, the subject of this sketch, son of Seth and Emily (Wright) Heywood, was born in Gardner, as above stated, June 25, 1836. He was educated at the public schools of Gardner, and at the academy in Westminster. After leaving the academy he was employed a short time as clerk in the store of Abel S. Wood in Gardner, and then entered the employ of the Heywood Chair Manufacturing Company.

After the dissolution of the company in 1861 and the formation of the firm of Heywood Brothers & Co., consisting of Levi Heywood, Seth Heywood, the father of

Henry, Charles Heywood and Henry C. Hill, he was made foreman of their factory and continued in that capacity until 1868. In that year he and his brother George were admitted to the firm, and Charles Heywood and Henry C. Hill retired. At a later date Alvin M. Greenwood, son-in-law of Levi Heywood, and Amos Morrill, son-in-law of Benjamin F. Heywood, deceased, were admitted, and in 1876 Charles Heywood re-entered the firm, remaining until his death June 24, 1882. Levi Heywood died July 21, 1882, and very soon after Seth Heywood retired. The interest of Seth Heywood was transferred to his sons Henry, the subject of this sketch, and George, and by a further readjustment of the interest of Charles and Levi, the firm was left at the beginning of 1883 composed of Henry Heywood, George Heywood, Alvin M. Greenwood and Amos Morrill. In 1887 George Heywood retired and George H. Heywood, son of Henry, became a partner and took charge of the warehouse which had been recently opened in Boston for the sale of the products of the company. In 1888 Calvin H. Hill, son of Henry C. Hill, and John D. Walsh of the New York branch were admitted. Mr. Morrill died September 3rd, 1891, and Mr. Greenwood died July 3rd, 1892, and the firm as now constituted consists of Henry Heywood, George H. Heywood, Levi H. Greenwood, son of Alvin M. Greenwood, Mrs. Mary A. Morrill, John D. Walsh and Calvin H. Hill, and it has retained the name of Heywood Brothers & Co. through all its various changes since its organization in 1862.

The business of the concern from which have gradually been evolved the present mammoth establishments and plants of Heywood Bros. & Co., was begun in 1826 by Walter Heywood, an uncle of Henry, in a little shop standing in the yard of his father's house which occupied the site of the present Town Hall. About the year 1830 Walter associated himself with his two brothers, Benjamin F. and William, and Moses Wood, of Garduer, and James W. Gates, of Boston. In 1835 Levi Heywood entered the firm, then bearing the name of B. F. Heywood & Co., and in 1837 Moses Wood and James W. Gates having left the firm, its name was changed to Heywood Brothers. About the year 1840 Levi Heywood assumed the business and conducted it alone until 1844, when he associated himself with his brother Seth and Moses Wood, one of his old partners, under the name of Heywood & Wood. In 1847 Mr. Wood retired, and Calvin Heywood, son of Levi, and Henry C. Hill entered the firm, which took the name of Levi Heywood & Co. In 1851 the firm was organized as a joint stock corporation, bearing the name of the Heywood Chair Manufacturing Company, which continued until after the burning of its factories in 1861, when it was dissolved. In 1862 the firm of Heywood Brothers & Co. was formed, when Henry Heywood, the subject of this sketch, was made foreman, as already described.

In the early part of the career of the Heywood enterprise the manufactured product was the common wooden-seated chair. At a later day the flag seat came into use, which at a still later period was superseded by the cane or rattan seat. The history of the introduction of the rattan into the manufacture of chairs is an interesting one, but cannot be admitted into this sketch. It is sufficient to say that the rattan came into use in Garduer, about the year 1833, and that from about that date until 1874 the chairs made by the Heywoods were those having seats or seats and backs made of rattan. Since that date the business of making reed and rattan chairs and furniture and children's carriages has been adopted as a part of their regular work.

The evolution of the machinery used in the production of chairs has been as marked as that of the product itself. The little shop of Walter Heywood contained only a foot lathe, and the various processes of manufacture were carried on by hand. The



L. S. Starrett

business of Heywood Brothers & Co., in Gardner, is now carried on in buildings containing about eight acres of floorage, in which are employed about thirteen hundred persons, with an annual pay roll of more than half a million dollars. The engines used to run the works furnish eight hundred and fifty horse power, and it may be safely said that the establishment is the largest and most perfect of its kind in the world. The annual product of the Gardner factory reaches more than a million of dollars, while those factories operated by the firm in San Francisco and Chicago yield a product of as much more. At the head of these immense establishments is Henry Heywood. He holds the lever and the brake, and while his foresight and skill guide the motive power of the industry, his judgment and prudence make it profitable and safe.

Mr. Heywood married, November 12, 1857, Martha, daughter of Seth Heywood and Phebe (Jackson) Temple, and his children are Helen Rebecca and George Henry, born July 28, 1862, who married Harriet, daughter of John D. Edgell. Mr. Heywood is a director of the First National Bank of Gardner, and a trustee of the Gardner Savings Bank, and in all enterprises touching the welfare of the community of which he is a member, in which sagacity, prudence and skill are essential to their advancement, his counsel and advice are sought.

L. S. STARRETT.

THE subject of this sketch is of Scotch descent, and was born in China, Maine, April 25, 1836. He is one of twelve children of Daniel D. and Anna Starrett. He was brought up on a farm, attending the public schools two or three months in the year. He had a natural taste for mechanical pursuits, and when a boy spent his pennies for small tools, such as knives, gimlets, chisels, planes, etc., with which he delighted to work. He left home for Massachusetts at the age of seventeen with the hope of finding employment in a machine shop, but failing in this he took up with work at farming.

From 1861 to 1864 he was successfully carrying on a stock farm of six hundred acres in Newburyport, Mass., called "Turkey Hill Farm." In 1864, while thus engaged, he displayed his ingenuity in the mechanical line, taking out three patents. In 1865 he sold his farming interest advantageously, and started a machine shop in Newburyport, employing a few skilled mechanics. In the spring of 1868 he moved to Athol, Mass., and put his business into the Athol Machine Company with a capital of \$25,000, subsequently increased to \$50,000, incorporated especially for the manufacture of his inventions, among which the American Meat-chopper was a leading article. The hook, glove and shoe fastener, another article, was at a later date sold to the Foster Kid Glove Company of New York city.

Mr. Starrett was the general agent and superintendent of the Athol Machine Company, and continued in service eight years, during which he added a number of patents to his increasing list. In 1878 he resigned and made arrangements to manufacture some of his later inventions on his own account. One of the inventions was the combination square, which, up to that time, had been made for him under contract by the Stanley Rule & Level Company of New Britain, Conn., but not in such a manner as to give him entire satisfaction. Other inventions entering into the product of his new enterprise were surface gauges, steel rules, calipers, etc., and he started his business in 1880, in Athol, with the employment of ten hands.

The general utility of his inventions and the thorough manner in which they

were manufactured gave his goods great popularity among mechanics, and soon established his enterprise on a solid foundation of profitable success. Soon outgrowing the quarters in which he had established himself, he bought a new building three stories high and eighty feet by forty feet square, and furnished it with the most approved machinery and the latest conveniences. Three years later he added a story and a half, and in 1894 built an addition one hundred and sixty feet by forty feet with three stories and a basement and a brick annex seventy-five by forty-two feet. These additions have been equipped with all modern improvements, including both gas and electric lights, steam heat, hot and cold water and everything in the sanitary line for the comfort and convenience of the employees. The whole plant is protected by automatic fire extinguishers.

In 1887 Mr. Starrett bought out the Fay Caliper manufacturing plant in Springfield, Mass., worth about \$15,000, and added it to his Athol establishment. In 1894 he bought a plant in Providence, engaged in the manufacture of milling, and formed cutters and moved that also to Athol, increasing it since that time by the addition of new and original machinery and tools designed and made especially for this business, and making it one of the best plants of the kind in the country.

In 1882 Mr. Starrett visited Europe and established agencies, laying a foundation for a business which has increased until his productions are almost as well known in Europe as in the United States. Scarcely a year has passed since he began business without the issue, in his name, of a number of patents, and he seldom has less than six or eight applications on file in the patent office at the same time. Infringements on his patents have frequently occurred, resulting in lawsuits in which he has been invariably successful. A catalogue of more than a hundred pages is required to illustrate the variety of his productions, and one hundred and fifty skilled mechanics are employed in their manufacture. The widespread circulation of his goods has given to the town of Athol a notoriety which few manufacturing towns of its size enjoy. Arrangements are now perfecting to incorporate the business now owned by Mr. Starrett under the name of the L. S. Starrett Co.

Mr. Starrett devotes his whole time and energy to his business affairs, and has never permitted himself, by the persuasions of friends and the allurements of politics, to be led into the bewildering paths of public life. In political faith, a Republican; in religious associations, a member of the Methodist Episcopal Church; in his civil relations, generous and charitable, and in his home a devoted husband and parent, he is amply satisfied with the duties and responsibilities and happiness which these relations, outside of his business, bring to him. A reputation for honest dealing, strict integrity, and faithful work it has been his aim to secure, and the products of his industry, scattered over the world, bear the indelible impress of these traits in his character.

Mr. Starrett married, April 20, 1861, Lydia W. Bartlett, daughter of Henry A. and Hannah Bartlett, of Newburyport, a descendant of Josiah Bartlett, one of the signers of the Declaration of Independence, and has had five children, four of whom are living.

JOSEPH B. SAWYER.

JOSEPH B. SAWYER, son of John and Lucy (Balcom) Sawyer, was born in Templeton, Mass., October 21, 1819. The inventive faculty and mechanical skill which has been so prominent in the family history, was shown to be predominant in Mr. Sawyer by the number and variety of his useful inventions.



Sylvanus Sawyer

By diligence and economy he acquired a small capital with which he and his brother Sylvanus, entered into the manufacture of cane, at East Templeton, in 1851; the youngest brother, Addison M. Sawyer, afterwards became connected with them. To Mr. Sawyer's attention to many of the practical mechanical details may be attributed a large measure of the extraordinary success and expansion of this business. After severing his connection with the brothers, S. and A. M. Sawyer, in the manufacture of cane, ordnance, etc., he became a member of the firm of Parker, Sawyer & Jennison, who had large factories at East Templeton, and did an extensive business. The business depression and losses incurred because of the Civil War brought financial disaster to this firm. This was a very unfortunate blow, as it prevented him from securing the fruits of later valuable inventions, which would have made him again independent.

Among the most notable of his inventions were a truck for street-railway cars, a roller-bearing ball castor, an electric motor, a reaper and harvesting machine, a folding reclining chair; he was the original inventor of the process of weaving cane and fastening it into the frames of chairs with splints, doing away with the tedious method of weaving it in by hand; this patent alone should have brought him immense wealth, as millions of dollars' worth of chairs made under it have been sold since its inception.

On the 23d of June, 1859, he married Martha Jane Lewis, of Lancaster, Mass., who, with their children, Burnside E., Louis J., Harris A. and Frank H. Sawyer, survive him. He died October 10, 1883. Mr. Sawyer was unselfish to a degree detrimental to the interests of himself and family; generous to a fault, he was ever ready to assist those in trouble to the best of his ability; treachery and deceit not being constituents of his character, it was with severe disappointment and loss that he often discovered himself to be the victim of misplaced confidence; of a kindly disposition, he could not harbor anger or ill-will towards those who injured him. Although with large business interests at the outbreak of the Civil War, love of country prompted him twice to volunteer for enlistment in the army, but he was not accepted on account of age and physical disability. He, by his inventive genius and mechanical skill, has by the energetic use of those abilities, become numbered with the many who by their untiring ambition have wrought shaping, directing influences which continue long after the actors themselves have passed from memory, swelling and adding an impetus to that swiftly progressive stream, known to be the life of our great and glorious American republic.

SYLVANUS SAWYER.

SYLVANUS SAWYER, son of John and Lucy Balcom Sawyer, was born in Templeton, Mass., April 15, 1822. The family is of Saxon descent, but came to England with William the Conqueror. The name, it is claimed, is derived from the invention and introduction of mills to saw by power, and in America the name of Sawyer has been associated with mills and a variety of manufactures in every generation. The inventive genius which has made the family of Sawyer famous in Massachusetts early showed in Mr. Sawyer, and while yet a youth he designed many playthings and trinkets for the young. At the age of seventeen he began work in a cane shop in Augusta, Me., where he remained a short time, and in 1844, soon after he had reached his majority, he came to Boston, and was employed for a short time in a coppersmith shop, and subsequently remained one year with Jones & Hobbs, manufacturers of locks and house trimmings. While here he devised

various improvements in the manufacture of tools. Returning to Templeton, he entered the employ of Mr. William Wood, a cane worker, and devised several improvements in this manufacture, and soon after was placed in charge of the most important work in this establishment, and here his ingenuity and ability found frequent exercise. In 1850 Sylvanus and Joseph B. Sawyer began the manufacture of cane for the use of chair-makers. A stock company was organized in 1852, known as the American Rattan Company, and the business was removed to Fitchburg. The Sawyer patents were assigned to the corporation, and an extensive business was continued under the superintendence of Mr. Sawyer, who was also one of the directors. Mr. Sawyer was also interested in cannon projectiles and other ordnance, and, in conjunction with his brother, Addison M. Sawyer, patented various articles of ordnance, which were accepted by the government. He was also the inventor of a steam generator; an improved rattan machine; another for calipers and dividers; centring watch maker's lathe, etc., etc.

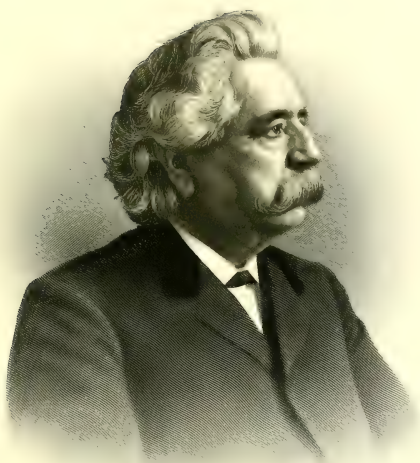
In about 1876 Mr. Sawyer was interested in the starting of a watch factory in Fitchburg, and, after considerable stock had been taken, hard times set in and the project was abandoned. He then turned his attention to the manufacture of watch tools, which he continued until the business was moved to New York, where a stock company was formed in 1881.

Notwithstanding Mr. Sawyer's mind naturally ran in the current of invention, he manifested a love for horticultural pursuits, and took a deep interest in progressive farming. His inventions revolutionized an important industry, and, through the inventions of the Sawyers Brothers, a great industry was transferred from Southern India, Japan and Holland to this country, and has added largely to the wealth and reputation of Massachusetts.

Mr. Sawyer was broad and liberal in his views, in all respects a progressive man, and occupied a front rank among the leading citizens and inventors of Massachusetts. He died October 13, 1895.

ADDISON M. SAWYER.

ADDISON M. SAWYER, son of John and Lucy Balcom Sawyer, was born in Templeton, Mass., August 14, 1827. The family through many generations has been distinguished for mechanical skill, and Mr. Sawyer ranked prominently among the inventors who have made New England famous. Sylvanus and Joseph B., brothers of the subject of this sketch, began the manufacture of cane at East Templeton in 1851, and in the following year the American Rattan Company was organized, and the enterprise was removed to Fitchburg. From the beginning of this business Addison M. Sawyer was employed by the company, and among the many inventions which he perfected was the "Tubular Spurred Cutter," patented in 1854, by which the business was revolutionized. He also patented the "Sawyer Gun" and other ordnance materials, which were successfully tested by the government, and received a merited commendation. The most conspicuous of these was the "Sawyer Canister Shot," which was adopted by the government, and he received \$25,000 for the patent. Mr. Sawyer also patented a machine for grinding and moulding peat, also an invention for a combination of rubber and emery, and the manner of constructing an emery wheel for grinding and polishing metals, also a screw-propeller driven by direct steam.



A. M. Stanger



John A. Dunn

His studies reached into the realm of science, and included important discoveries in electricity and chemistry. Among these was the process for refining and giving ripeness and the quality of age to distilled spirits. A review of his successful achievements lead to the conclusion that the bent of his mind was not mainly directed to ingenious mechanical contrivances, but rather to a broader field, which unites discovery with invention. His last inventions combined discoveries in science with an intimate knowledge of mechanics and the result of independent study and investigation, rather than the accidental fortune of instant invention.

October 23, 1854, he united in marriage with Harriet Elizabeth Blackmer, daughter of Hosea Blackmer, of Dana, by whom he had four children. She died July 23, 1876; and on August 8, 1877, he married Mary E. Stevens, daughter of Darwin H. and Harriet Andrews Stevens, of Guilford, Vt., who survives him. He died January 23, 1890.

Mr. Sawyer resided in Athol nearly a quarter of a century, and his mansion in the upper village was the finest in this section. He was always active in all interests tending to advance the welfare of the upper village, where he had valuable properties. He was the leading spirit in the organization of the Athol National Bank and also in the building of Music Hall, which was burned several years ago. He was prominent in Masonic circles, and was a member of Jerusalem Commandery, Knights Templar, of Fitchburg. Mr. Sawyer was a man of commanding presence. His features were refined and regular, and lighted with a dark, clear eye of unusual brilliancy. In manner he was affable, courteous and kind, and in conversation fluent and intelligent. His opinions were candidly and clearly expressed, yet in a manner both deliberate and thoughtful. His sympathies were ever warm, his impulses generous, his friendships enduring, and he was justly regarded as one of Massachusetts' most esteemed and honored citizens.

JOHN AINSWORTH DUNN.

JOHN AINSWORTH DUNN is the great-grandson of John Dunn, who lived in Westminster, Mass., in the middle of the last century, and the son of John and Abigail (Jackson) Dunn, of that town. His father removed to Petersham, Mass., and following the occupation of farming, remained there until far advanced in life, when he took up his residence in Gardner, Mass., where he died at the age of eighty-eight years. Mr. Dunn was born in Westminster, November 2, 1831, and at the age of six years removed with his father to Petersham. He was educated in the district schools of that town, and until he was sixteen, assisted his father on his farm. At that age he was put out by his father to work on neighboring farms, and continued in this employment until he reached his twentieth year, when, in consideration of the gift of his earnings up to that time, his father released all further claim on his services. From that time until 1855, he was engaged in various occupations, including that of chair-making, and in that year he removed to Gardner, arriving in that town with his sole possessions, consisting of a trunk, two suits of clothes, and less than fifty dollars in money. He soon found employment in the works of the Heywood Chair Manufacturing Company, and continued in the service of the company nine years. At that time, Elijah Putnam, who had been one of the apprenticed workmen of James M. Cowee, the father of the chair business in Gardner, was actively engaged as a chair manufacturer. Beginning business in 1825, in one of the rooms

of his dwelling-house, with a foot lathe as his only machinery, Mr. Putnam had, at a later date, built a shop, to meet the demands of his trade for enlarged accommodations. In 1838, he bought of William S. Lynde a mill privilege, and building a dam, removed his shop to the privilege. At the end of seven years, he sold the plant to Cowee, Colleston & Co., a firm consisting of Thorley Colleston, Benjamin H. Rugg and Ruel I. Cowee. Afterwards, Maro Colleston and Edward Stevens bought the interest of Mr. Cowee, and the firm-name was changed to Colleston, Rugg & Co. At a later date, Franklin and George Eaton took the places of Maro Colleston and Edward Stevens.

In 1862, Franklin Eaton purchased the interest of Mr. Rugg, and the firm was Colleston, Eaton & Co. until 1864, when Thorley Colleston died, and his interest was bought by Nathaniel Holmes and John A. Dunn, and the firm name became Eaton, Holmes & Co. In the same year the company purchased the interest of George Eaton, and in 1865, Mr. Holmes retired, and Eaton & Dunn carried on the business until 1875. In that year, Mr. Eaton sold his interest to Isaac J. Dunn, a brother of John A. Dunn, and until 1886, the firm-name was J. A. & I. J. Dunn. In that year Mr. Dunn bought his brother's interest, and since that time he has been the sole owner of the plant and manager of its business.

Since the admission of Mr. Dunn to the original firm of Eaton, Holmes & Co., the business of the concern has increased many fold. The addition of steam power to that of water, the improvements in machinery and in the various processes of manufacture, the constantly increasing demand for its products, and the energy and shrewdness of Mr. Dunn, together with his thorough knowledge of every detail in chair manufacture, have all served to place him in the front rank of his profession.

In connection with the factories at Gardner, offices and warehouses are maintained at Chicago and Boston, and, in addition to the business passing through these houses, Mr. Dunn has a large direct trade with the principal chair-makers in the cities at home and abroad. So successful has been his career, that the young man who entered Gardner forty years ago, with a capital of less than \$50, is now one of the largest property-owners in Gardner.

The accumulation of wealth, however, has been by no means the sole object of his ambition. The limited education, which he received in the public schools, was for him only the beginning, instead of the end, of mental discipline, and upon that as a foundation, he has been building through life. There is no better test than a man's home of the degree of cultivation which his tastes have reached. In the home of Mr. Dunn marks of culture are everywhere found, to which travel abroad and in America has added its tributes of ornament and beauty.

The confidence reposed in Mr. Dunn by his fellow-citizens and the esteem in which he is held, are sufficiently indicated by the positions of trust, to which he has been called. He is president of the Westminster National Bank of Gardner, president of the Gardner Gas, Fuel and Light Co., trustee of the Gardner Savings Bank, and director in the Wachusett Mutual Fire Insurance Company of Fitchburg. In the affairs of the Methodist church in Gardner Mr. Dunn takes an active interest, and is a liberal and willing contributor to its support. He is a zealous promoter indeed of every measure calculated to promote the interests of his town, and the social, moral and material welfare of its people always finds in him a generous friend.

Mr. Dunn married November 30, 1857, Sophia W., daughter of Rufus and Experience (Porter) Chaffee, of Lyndon, Vt., and he attributes much of his success to the wisdom and council of his partner. Their family consists of two sons and two



E. M. Lyman

daughters. The sons are associated with him in business. One of the daughters married Rev. Seth C. Cary, of Reading, Mass., and the other resides with her parents.

EDWARD MASON LYMAN.

MR. LYMAN is descended from the purest and sternest Puritan stock. Richard Lyman, his first American ancestor, lived in the county of Essex, England, and, embarking at London in August, 1631, in the ship "Lion," Captain Pierce, arrived at Boston, Mass., November 2d, and landed on the 4th of that month. He first settled in Charlestown, but afterwards migrated to Hartford and was one of the first settlers of that place in 1635. The party, of which he was a member, drove with them one hundred and sixty head of cattle through the wilderness, and were fourteen days on their journey. His will, dated April 22, 1640, was the first will recorded in Hartford, where he died in the following August. He left five children—Richard, Sarah, John, Robert and Fillis. John Lyman, one of these children, born in England in September, 1623, came to New England with his father, and married Dorcas, daughter of John Plumb, of Branford, Conn. He removed with his brothers and sisters to Northampton, Mass., about 1654, and there died August 20, 1690. He was a lieutenant in the militia, and served in the Falls fight above Deerfield May 18, 1676.

John Lyman, son of John and Dorcas (Plumb) Lyman, was born in Northampton, and married, April 19, 1687, Mindwell, widow of John Pomeroy. He had ten children, and died November 8, 1740.

John Lyman, son of John and Mindwell Lyman, was born in Northampton October 12, 1693, and about 1745 removed to Hockanum, Hadley, Mass. He married, in 1718, Abigail Moseley, of Westfield, and afterwards widow Theodora (Hunt) Sheldon, and died November 9, 1797.

Zadock Lyman, son of the last John, was born in Northampton in 1719, and removed with his father to Hockanum in 1745. He married Sarah, daughter of Ebenezer Clark, and died October 14, 1754.

Israel Lyman, son of Zadock and Sarah (Clark) Lyman, was born in Hockanum February 7, 1746. He married, January 4, 1770, Rachel Beals, and died June 8, 1830.

Israel Lyman, son of Israel and Rachel (Beals) Lyman, was born in Hockanum October 17, 1776, and became a farmer. He removed to Rock Ferry, South Hadley, Mass., where he owned a farm of about one hundred acres and a large two-story brick house, commanding a fine view for many miles up and down the Connecticut river. Besides his regular duties, he owned and managed a ferry, which, at that time, crossed the river at this point. He married, May 13, 1802, Sarah H. Moody, and died at Rock Ferry, South Hadley, August 4, 1836.

Edward Mason Lyman, the subject of this sketch, is the youngest of twelve children of Israel and Sarah (Moody) Lyman. He was born in South Hadley, Massachusetts, May 13th, 1825, and until eleven years of age attended the public schools of his native town. Of this large family three are living—Harvey, Elijah, Austin, and Edward Mason. After the death of his father, his mother removed with her family to Enfield, Conn., where he attended school until he was seventeen years of age. After leaving school he entered the employ of the Society of Shakers, established in Enfield, and remained with them twelve years. The Society of Shakers, whose technical name is the "United Society of Believers

in Christ's Second Appearing," originated in England about the year 1770. In 1774 a few prominent members emigrated to America and formed a settlement at what is now Watervliet, N. Y. In 1779 a settlement was formed in New Lebanon, N. Y., and very soon after other settlements were founded at Hancock, Tyringham, Harvard and Shirley, Mass.; at Enfield, Conn.; at Canterbury and Enfield, N. H.; and at Alfred and New Gloucester, Maine. Since that time additional settlements have been organized in many places in various parts of the Union. These settlements are quite extensively engaged in the cultivation of land, and especially that connected with the culture of flowers, herbs, fruits, vegetables and garden flower seeds. The department of the business with which Mr. Lyman was particularly associated, was that of raising seeds and packing them in small packages for the market, and at nineteen years of age he was employed as salesman. His thorough training in this work laid the foundation on which his successful career as a seed-raiser and packer has been built.

At the age of twenty-nine, Mr. Lyman removed to Springfield, Mass., and for six years, until 1858, was engaged in various occupations. In that year he began, in a small way, the business, which he had learned among the Shakers in Enfield. Starting with a capital of \$500, he packed during the first year fifty boxes of papered seeds, the contents of which were raised by himself. These he personally sold to dealers, and, meeting with satisfactory success, he, from year to year steadily increased his operations until finally he was obliged to abandon the business of raising his own seeds and to contract with farmers, being very careful to supply them with good stock-seed. Still later he found it essential, to a proper development of his trade, to deal in foreign seeds, and now his annual importation of seeds from Europe forms no inconsiderable part of his supply. At the present time he has contracts with many farmers in different places to furnish him with stock, and his annual product amounts to about fourteen thousand vegetable and six thousand flower boxes.

His business is carried on in a three-story building in Springfield, measuring one hundred and twenty feet by forty. Here machines make about twenty thousand paper-bags daily, and the work of filling them, formerly done by hand, is also performed with rapidity and precision by two machines, the operations of which display great ingenuity and inventive skill. His order-wagons are sent through nearly every part of New England, New Jersey, New York and Pennsylvania, and the supplies are sent to dealers by freight. Boxes with his labels may be seen in nearly every city and town within the range of his traveling salesmen, and the character of his goods has won for him a reputation which is still adding largely to his sales.

In September, 1891, his son, Albert E. Lyman, who had then reached the age of twenty-one, became associated with him in business under the firm-name of Edward M. Lyman & Son. In 1889 Mr. Lyman visited Europe, and the result of his visit to England, with the information there obtained, and the arrangements there made for seed-supplies, has been a further development of his industry. Probably no man in the country has had a more thorough education in the business, in which he is engaged, than Mr. Lyman, and no firm in the business of seed distribution has a more extensive reputation than the firm of Edward M. Lyman & Son.

Mr. Lyman has neither sought nor held office in church or state. His business occupies a greater part of his time and thought. He is a thorough reader, however, on all subjects within the domain of politics and theology, but is anchored to no party platform or creed. He follows the dictates of his own judgment, and not those of others, and allows no man or set of men to formulate doctrines for his permanent guidance.



Daniel Hitchcock

Mr. Lyman married, first, in April, 1854, Caroline, daughter of Roswell Blodgett, of Holland, Mass., all of whose children, three in number, died. He married, second, June 9, 1886, Eliza M., daughter of John Bayliss, and of English birth. Her children have been: Albert E., who married September 25, 1895, Volborg A. L. Erichsen, a native of Christiana, Norway, and Alice M., who married April 19, 1893, Nelson L. Elmer, who is now bookkeeper of the First National Bank of Springfield.

DANIEL HITCHCOCK.

THE subject of this sketch was descended through both his father and mother from Luke Hitchcock, who was one of the early settlers of Hartford, Conn., and who married Elizabeth Gibbon, of that town. John Hitchcock, son of Luke, married September 27, 1666, Hannah, daughter of Samuel and Cisly Chapin, of the plantation of Norwottuck, and had a son John, who was born in Springfield, Mass., April 13, 1670, and married September 24, 1691, Mary, daughter of Samuel and Mary Ball, of Springfield. The last John died July 4, 1751, and left a son John, who was born in Springfield, December 14, 1692, and married August 1, 1717, Abigail, daughter of Samuel and Joanna (Lamb) Stebbins. This last John was one of one hundred and twenty-five to whom the town of Springfield laid out a tract of land extending four miles east and west and twelve miles north and south in the easterly part of the township. The farm on which he lived remained in the family until May, 1894, when it was given by Harriet Bellows Hitchcock, the daughter of the subject of this sketch, to be sold and the proceeds to be used for the purchase of cases for the exhibition of the George Walter Vincent Smith collection, and the arrangement of the art collection in the Springfield Art Museum. A donation of \$5000 had previously been made by Miss Hitchcock for the same purpose. Josiah Hitchcock, son of John and Abigail (Stebbins) Hitchcock, was born in Springfield, November 29, 1728, and married June 28, 1753, Martha, daughter of Luke and Martha (Colton) Hitchcock, who died January 27, 1801. He married, for a second wife, Dec. 9, 1802, Widow Lucy Ely, of West Springfield, who died March 19, 1826. He died in Springfield, January 6, 1819. He had a son, Josiah, who was born in Springfield, June 3, 1767, and married April 27, 1789, Huldah, daughter of Stephen Hitchcock. He died February 7, 1815, and his wife survived him until June 10, 1852. The above Josiah was the father of the subject of this sketch.

The above record shows, not only that his father was directly descended from Luke Hitchcock, the first American ancestor, but also that his father, grandfather and great-grandfather married wives descended from the same ancestor and bearing the same family name. Few families in Connecticut, which state has been the chief habitat of the descendants of Luke Hitchcock, have borne a name more distinguished and more closely associated with the literary, religious and scientific achievements of the different periods in New England history.

Daniel Hitchcock was born in Springfield January 30, 1796. His father, who occupied the old farm, which was originally a part of the grant from the town of Springfield to his great-grandfather, John Hitchcock, in the early part of the eighteenth century, gave him such an education as his limited means could afford, and the district schools of Springfield could furnish, and took him at an early age to assist in the labors of the farm. After the death of his father in 1815, and when he was but nineteen years old, he purchased from the other heirs their rights in the property and became sole owner of the estate. This threw upon his shoulders the

responsibility of keeping up to a proper standard of cultivation the lands of the old family homestead. He married March 18, 1824, Lydia, daughter of Asa Day, of Granby, Mass., and occupied the ancestral home. His mother resided with him until her death, which occurred June 10, 1852. The location of this farm was in the open country about two miles from the central part of Springfield, and the value of its land was measured by the profits derived from its cultivation. As the town gradually broke through its bounds with a rapidly increasing wave of population, the farm land was wanted for streets and house lots, and what was worth before so much an acre was now estimated at so much a foot. The demand for lots enlarging and values increasing in proportion to the steady advance of constructive improvements, Mr. Hitchcock thus passed from the occupation of a farmer to that of a land-owner. At the time of his death, July 1, 1877, the family house, with that part of the farm remaining unsold, came into the possession of his only child, Harriet Bellows Hitchcock, who continued the sale of lands until May, 1894, when she gave what was left of the farm, including the house, to the Springfield Art Museum, as stated in an earlier part of this sketch.

Mr. Hitchcock had little time or inclination to mingle in public affairs. His political associations were for many years with the Whig party, and afterwards with the Republican party. He was at one time a member of the city council of Springfield, and to that extent only did he ever permit himself to be enticed away from his legitimate pursuits. In theology he was an Orthodox Congregationalist, and in the earlier part of his career was connected with the First Church in Springfield. After the neighborhood of his farm and home became well settled, he became associated with the Memorial (Union Evangelical) Church, and contributed to its erection. He was a faithful attendant at the services of the church, giving liberally to its support during his lifetime. Since his death his daughter has given five thousand dollars for the purchase of the land on which the parish house of this church stands, and the house bears a tablet on its outside wall declaring the gift as a memorial of her father. Miss Hitchcock, inheriting the benevolent instincts of her parent, has in other directions been a benefactor of her native town. Among her several donations were two thousand dollars to the "Home for Aged Women," as a memorial to her mother; one thousand dollars to the girls' school of the "French-American College," and over eight thousand dollars to other institutions, etc. She also made an especial donation of one thousand dollars towards the erection of the museum building aforesaid, and which was given in memory of her double cousin, Catherine H., wife of John Lombard, and daughter of Festus and Pamela (Day) Hitchcock. Mrs. Lombard, in whose memory this donation was made, died January 19, 1891. She, too, evinced a most laudable generosity, by leaving bequests in her will of fifty thousand dollars to various charities and institutions.

Portraits of Miss Hitchcock and her father, painted by Thomas W. Wood, P. N. A., of New York, have been hung in the Art Museum.

After the completion of the foregoing sketch Miss Hitchcock passed away in Springfield March 26, 1896, at the age of sixty-nine years. Before her demise, which was sudden and unexpected, it was known among a few that she had planned to make a will, leaving further munificent bequests to certain institutions of charity. But death claimed her before her laudable purposes could be consummated.

And thus she passed from out life's fleeting drama, leaving a host of aching hearts to mourn her departure and to deplore the fact that her acts of benevolence—many of which were unknown to the public—can probably never be reproduced by another. Miss Hitchcock fondly cherished the memory of her father, and believed



Justin M Cooley

that her benefactions accorded with the lessons of love and charity which his spirit and life had always taught.

JUSTIN MORTON COOLEY.

MR. COOLEY is descended from Benjamin Cooley, one of the first settlers in that part of Springfield, Mass., which was incorporated as the town of Longmeadow, October 13, 1783. Benjamin Cooley died August 17, 1684, and his wife, Sarah, seven days later, the couple having had eight children, Dennis Cooley, a descendant of Benjamin, was a farmer in Plainfield, Mass., and married Phila, daughter of Justin Morton, a farmer of Whately, in which latter town he died in 1847. Justin Morton Cooley, the subject of this sketch, was born in Amherst, Mass., where his father was then living, May 12, 1815. He attended the public schools of Plainfield and an evening school in Whately, and at an early age was thrown upon his own resources for a livelihood. He was put out to work with his uncle, Lemuel Cooley, of Hatfield, to learn the trade of making brooms, living with his father, who for a short time had his residence in that town. Having learned his trade, he removed to Whately, and afterwards to Hatfield and Deerfield, where he was employed by various persons in the occupation which seemed at that time to be his destined one for life. At a later time he opened a shop of his own in Whately for the manufacture of brooms, and employed three or four hands. He sold his goods on orders which he received by personal visits to New York and Boston, and made his own deliveries. In 1844, having become acquainted with prominent persons in his line of trade in New York, he secured through them employment in an establishment on Fulton street in that city engaged in the manufacture of brooms and wooden ware. In 1847 he bought out the establishment, and for a year carried it on alone, and then removed to Springfield.

At the time of his going to Springfield in 1848 he was thirty-five years of age, and had accumulated a capital sufficient to permit him to undertake enterprises suitable to his taste and business ability. Springfield at that time, though it had been some years connected by rail with Boston and New York, and more recently with Albany, was a town of about eight thousand inhabitants. The first effect produced by its railroad connections was not especially beneficial; but the keen eye of Mr. Cooley saw that, with its outlets by rail east, west, north and south, it could not fail to become an important business centre. The growth of the town, incorporated as a city in 1852, and with a population in 1896 of fifty thousand, has justified his expectations. He bought a lot of land on Main street immediately south of the railroad, and in close proximity with the station as then located, and built a hotel with a frontage of forty-five feet on Main street, and one hundred feet along the railroad line, to which, from time to time as his means accumulated and his business justified, he made large additions. The Cooley House, as it is called, is the largest hotel in Springfield, and is especially popular with commercial travelers, by whose advice the general traveling public is led to its doors. In the same building, having access from the hotel, are many business offices, which give the house the appearance of a business exchange. The hotel was kept by Mr. Cooley until 1889, since which time it has been under the management of Henry E. Marsh, and been carried on with continued success.

Springfield is a busy, flourishing city, full of progressive, thrifty men; but of these there are but one or two who, like Mr. Cooley, have for a period of fifty

years grown with its growth, kept pace with its prosperity, and been identified with its municipal interests. He is now eighty-two years of age, but neither his body nor mind has yielded seriously to the attacks of time.

Mr. Cooley has been many times honored by his fellow-citizens by election to political office. In 1870 and 1871 he was a member of the Massachusetts House of Representatives, and after serving several years in the Common Council of the city he was, in 1887, a member of the Board of Aldermen. Both as a citizen and public officer he has always maintained himself in the respect and confidence of the community which he secured in the early years of his residence in Springfield.

Mr. Cooley married, September 1, 1836, Anna B., daughter of Calvin Marsh, of North Hadley, who died January 13, 1894. He has had three children: Eliza Ann, Mary Emma and Phila Isabel, the last two of whom died in infancy. Eliza Ann, who is the wife of Harry G. Peet, is a faithful companion of her aged father in his declining years.

WILLIAM NORCROSS FLYNT.

WILLIAM NORCROSS FLYNT, was born at Monson, Massachusetts, March 14, 1818. He was the youngest son of Rufus and Sarah Norcross Flynt, and is a lineal descendant of Thomas Flynt, who settled in Salem, Massachusetts, in 1640. Rufus Flynt was a prosperous and highly respected merchant in Monson, and one of the founders and principal benefactors of its widely-known Academy and college-fitting school. Just before his decease in 1836, Rufus Flynt, incidentally became the owner of an outlying farm in Monson from which granite had been occasionally taken by its former owner in a small and desultory way for building purposes. William N. Flynt, the subject of this sketch, succeeded his father in business at the latter's decease, and early began to develop a granite quarry upon this farm. This industry soon became his principal business, and it has ever since assumed constantly increasing proportions. The granite from the Monson quarries has proved of great strength and beauty for construction purposes, and is practically unaffected by exposure to the weather, and is unsurpassed for resistance to strain.

Mr. Flynt brought to his life work exceptional energy, perseverance, tact and business aptitude. These qualities have enabled him to demonstrate in almost every city of his native state, and in very many cities and towns outside of New England, the quality of Monson granite and the substantial, enduring and artistic work that can be done in it. State capitols, city halls, churches, libraries, museums, college buildings, mills, railroad stations, monuments, bridges and fountains are Mr. Flynt's memorials, erected by himself throughout the Eastern states.

In 1884, Mr. Flynt incorporated his granite business under the name of The William N. Flynt Granite Co., and his distinctively construction business he incorporated under the name of The Flynt Building and Construction Company. Both of these concerns have prospered. The aggregate annual business of these companies is not far from one million dollars. The employees number several hundred throughout the business season, and sometimes upward of one thousand. The Construction Company in particular is constantly extending its field of operations. Probably no concern in the United States has had greater experience or success in the erection of entire manufacturing plants of the largest size.

No citizen of Monson has done more for his native town than Mr. Flynt. He has been the life long-friend and generous patron of its Academy and its oldest



Mr. B. J.



John H. ...

living trustee. He was the projector and first president of the Bank of Monson. Within the past ten years he opened to the public a park of about two hundred acres near his residence in Monson, and has spent a great deal of time and money in developing and beautifying it. It is doubtful if there can be found in the state of Massachusetts another park, opened and dedicated to the public by private liberality, of equal natural beauty, extent and artistic development. Near the entrance to this park and upon the principal street in the town Mr. Flynt also erected a beautiful granite fountain worthy to grace and adorn any city park.

He was often honored by his townsmen and represented it in many official capacities. He was a member of the Massachusetts Legislature in 1848, and again in 1861. He was also a member of Governor Andrew's Executive Council in 1865, and of Governor Bullock's Council in 1866. He was a staunch Republican in politics after the organization of that party, and was a delegate to the National Republican Convention at Chicago in 1888.

His home life was as happy and prosperous as his business and public life. He was blessed with four sons and three daughters, of whom all are successfully established and settled in life, except the eldest son, William K. Flynt, who was stricken down at thirty-five years of age by a sudden and fatal illness. But even at that age he had proved that he was the inheritor to a striking degree of his father's energy and business aptitude. Among his remaining sons there is not lacking ample ability to continue the business which the father has built up.

Mr. Flynt was a true exponent of that class of self-made business men who, by their personal example, their business habits and their untiring and generous interest in the public welfare, made themselves the benefactors of the times and communities in which they have lived. Mr. Flynt died September 27, 1895, respected and beloved by the community whose interests and welfare he had so long served.

EDWIN RUTHVEN BOSWORTH.

BENJAMIN BOSWORTH, the first American ancestor of the subject of this sketch, came from England in 1634, and settled in Hingham, Mass. He had two sons, Benjamin and Nathaniel, the former of whom married, in 1666, Hannah, daughter of Nathaniel Morton, of Plymouth, and the latter, in 1670, Elizabeth Morton, another daughter of Nathaniel. George Morton, the first American ancestor of the Morton family, married in Leyden, Holland, in 1612, Julia, daughter of Alexander Carpenter, of Wrentham, England, and sister of Alice Carpenter, who, when a widow of Edward Southworth, became the second wife of Governor William Bradford. George Morton had the following children: Nathaniel, born in 1613; Patience, in 1615; John, in 1616; Sarah, in 1618; Ephraim, in 1623; and perhaps George. He came to Plymouth in the ship "Ann," in 1623, and settled with his family in that town. Nathaniel Morton, his son, from whom the Plymouth family is descended, came to Plymouth with his father in the "Ann" in 1623, and married, in 1635, Lydia Cooper. He succeeded Nathaniel Souther as secretary of the Plymouth colony in 1645, and remained in office until his death in 1685. He published in 1669 a book, entitled "New England's Memorial," which is a standard work of authority on matters relating to Pilgrim history. It will thus be seen that Mr. Edwin Ruthven Bosworth, the subject of this sketch, carried in his veins some of the best New England blood.

Peleg Bosworth, the grandfather of Mr. Edwin R. Bosworth, lived and died in Rehoboth, Mass., and Old Colony town, incorporated in 1645, of which his ancestors were among the early settlers. His son Peleg, the father of Edwin Ruthven Bosworth, a carpenter and builder by trade, was born in Rehoboth in 1778, and married Susanna, daughter of Chase Rounds, of that town. Edwin Ruthven Bosworth was born in Rehoboth March 16, 1826, and was the youngest of twelve children. He was educated in the district school, and afterwards worked on his father's farm until 1843, when he was seventeen years of age. He then went to Providence, where he worked two years at the carpenter's trade, afterwards working one year in Fall River, and then from 1846 to 1850 as journeyman in Palmer, Mass. In the latter year he began business in Palmer as a carpenter and builder on his own account, and built the Baptist Meeting House and the New London and Northern Railroad Station in that town. During the year 1854 he traveled through the West in search of an eligible place for a permanent settlement, but finding none suited to his taste he returned East, and in 1855, during a temporary residence in Amherst, Mass., superintended the construction of the Appleton Cabinet Building and the residence of Professor Tuckerman, of Amherst College. In the same year he removed to Easthampton, Mass., and established himself there in a permanent home. His skill and fidelity as a builder soon secured for him constant and lucrative employment. The Town Hall in Easthampton, the Methodist Meeting House, the Gymnasium, one of the halls of Williston Seminary, the First National Bank Building, the High School House, various mills and blocks of stores, and the residences of E. Thomas Sawyer, George S. Clark, E. H. Gale, now occupied by F. C. Newkirk; H. L. Clark, J. E. Clark, now occupied by G. P. Noble; F. J. Gould, now occupied by P. P. Brown; and of E. H. Sawyer, all in Easthampton, attest his proficiency as either architect or builder. Nor was his work confined to the town in which he lived. The building of the First National Bank and the residence of William B. Hale, in Northampton, are examples of his mechanical taste and skill. To his occupation as a builder he added that of civil engineer, and from 1873 to 1876 he was associated with C. W. Richards in the lumber business in Springfield.

During his residence in Easthampton, Mr. Bosworth not only won a reputation as a reliable and trustworthy builder, but also as a business man in whose judgment his fellow-citizens confided. He was at various times a member and chairman of the Board of Selectmen, was a director in the Easthampton National Bank, a trustee and member of the finance committee of the savings bank in that town, and a representative in 1880-81-85. He married, May 20, 1849, Hannah E., daughter of Nathan Barron, of Lyndon, Vt., and had four children, of whom Frank Erwin, born in Palmer, August 4, 1853, and Susie B., born in Easthampton, April, 1866, are now living. Frank Erwin Bosworth married February 8, 1893, Winifred Heyer, of Boston, and is living in New York, where he has charge of the office of the *Boston Herald*; Susie B. Bosworth married, November 30, 1887, George Leslie Munn, and lives in Easthampton. Mr. Bosworth died in Easthampton, July 18, 1887.

Mrs. Bosworth, the wife of Edwin Ruthven Bosworth, was also of good stock, being descended from one of three brothers Barron, who came over and settled in Keene, N. H., early in the eighteenth century. Two of her grandfathers, and one great-grandfather and two uncles served as soldiers in the War of the Revolution, and another great-grandfather was a heavy contractor in the same war.

The career of Mr. Bosworth, like that of many a son of New England, teaches a lesson to our youth, that even with a limited education, success in life may be assured as the fruit of industrious habits, thoroughness of work, and strict integrity.



John A. Lakin,

The memorials which such men leave behind them are to be found as well in the influence of their example, as in the monuments erected by their hands.

JAMES ALFRED LAKIN.

HERE are many readers of this sketch who will remember with the writer when what is now Beacon street, in Boston, beyond Arlington street, was a mere causeway, extending to or beyond the bounds of Brookline, and was called the Mill Dam. On both sides were the waters of Charles river, and a toll-house was situated at or a little east of the westerly corner of the present public garden, together with the toll-gate, which was opened by a tender on the payment of a small toll for the passage of travelers in carriages or on foot. About the year 1838 this toll-house and gate were tended by the grandfather of the subject of this sketch, who lived in a small house on a piece of land raised a little above tide water, which will doubtless be remembered by many with its rustic posts supporting a piazza along its front. The site occupied by this house is now traversed by Massachusetts avenue. Mr. Lakin's father was born in Scotland and died in Boston about 1846.

James Alfred Lakin, the subject of this sketch, was born in Boston, February 7, 1841, and received his early education in the public schools of that city. After leaving the city schools he went to Brockton, Mass., where for a time he also attended school, and until the summer of 1861 worked in one of the shoe shops of that town. Before leaving Boston he had been a member of the Pulaski Guards, a military company of South Boston, where his home had been, commanded by Captain Joshua Jenkins. Returning to South Boston in 1861 he enlisted as a private for three years in Company E, First Massachusetts regiment, commanded by Captain Clark B. Baldwin, and was afterwards made corporal.

Having been severely wounded at the battle of Williamsburg, on the peninsula, he was recommended to his excellency, Governor Andrew, by the commanders of the company, regiment and brigade, for a lieutenant's commission for gallantry in the field, but remained in hospitals at various places until March 12, 1863, when he was discharged for disability. After his discharge he learned the watchmakers' trade in Garduer, Mass., where he remained three or four years. He then removed to Springfield, Mass., where he established himself as watchmaker and jeweler on his own account, opening, soon after, two other stores, one in Thompsonville, Conn., and one in Westfield, Mass. Finding after a time that a centralization of his business was essential to success, he sold out his establishments in Thompsonville and Springfield, and until 1888 confined himself to the management of his Westfield store, and of such enterprises as he had become associated with, and the management of which was largely in his hands. In 1888 he sold out his watchmakers' and jewelers' store in Westfield and gave to these various enterprises his whole time. In 1883 he established a telephone plant in Westfield and became its manager. At a later time he became associated with the United Telephone and Telegraph Company, of New York, and was for some time engaged in the manufacture in Westfield of experimental instruments for that company. Of this company he was the vice-president and mechanical manager. He established also the electric light company of Westfield, and in 1885-86 was its president and manager. Aside from these enterprises his fertile mind has been turned towards inventions of various kinds, and at the present time he is the owner, or part owner, in about a hundred patents, the creation of his own ingenuity and skill.

In 1887 Colonel Lakin organized the Masons' Fraternal Accident Association, which is confined in its operations to members of the Masonic order. He is the secretary and general manager of the association, which has its headquarters in Westfield and its agents in every state in the Union. The returns of this association show that on the 31st of December, 1893, the amount of insurance in force was \$48,099,520, and the amount of benefits paid up to that date, \$303,003.81.

He is general manager of the Massachusetts Masonic Life Association, president of the National Masonic Aid Association, president of the Business Men's Association of Westfield, president of the Westfield Street Railway, vice-president of the Woronoco Park Association and Past Master of the Mount Moriah Lodge of Masons in Westfield, having taken all of the degrees up to the thirty-third in the ranks of that order.

He has also been commander of the Lyon Post of the Grand Army of the Republic, and was a member of the staff of General Russell A. Alger, and was, in 1890, the National Commander of the Grand Army. In 1891 and 1892 he was a member of the Massachusetts House of Representatives, and is now a member of the staff of Governor Greenhalge. His services in the legislature were especially beneficial to his constituents, and he was declared by the Springfield *Republican* to have made an exceedingly creditable record, and to have been instrumental in the passage of several important measures favoring educational and agricultural interests. Colonel Lakin married, in 1865, Nettie J., daughter of Theron Walcott, of Sandisfield, Conn., and, in 1870, Addie L., daughter of Luther Tower, of Brockton, Mass. He has one son, Henry, a child by his first wife, and three daughters: Beula, Bertha and Maud, children by his second wife.

IRA MILLER.

THE Miller family, of which the subject of this sketch is a member, is descended from John Miller, of the town of Ayr, in Ayrshire, Scotland, who moved, in the middle of the sixteenth century, to Antrim, in Ireland. He was engaged in the battle of Antrim, and received, for valorous conduct in the field, grants of valuable land in Antrim county. On this grant he built Antrim Castle, which is still occupied by some of his descendants. One of the descendants of his second son, John, emigrated to America in 1685, and settled in Rockingham county, Virginia. Samuel and James Miller, sons of the Virginia immigrant, moved, in 1803, to Christian county, Ky. Samuel married a Miss Quinn, and had a son, James Quinn Miller, who was the father of Ira Miller, of whom this sketch is written.

James Quinn Miller, born and brought up in Kentucky, was engaged in business in that state as a substantial merchant until the disturbed condition of affairs incident to the War of the Rebellion obliged him to relinquish it. At the close of the war he established himself in the dry-goods trade in Evansville, Ind. He married Susan Ann, daughter of John Ragland, and Ira Miller was his only son. John Ragland was a man of distinguished descent. On the borders of Monmouthshire and Glamorganshire, in Wales, there still stands the ruin of an old feudal castle called Raglan or Rhaglin, which gave the name to the family. Robert, the youngest son of Evan Thomas ap Gwilm Herbert, was the first progenitor of the Raglans, and assumed that name for his son John because he himself had been brought up by his uncle, Sir William Herbert, at Raglan Castle. John Raglan married a daughter of Robert Mathew, of Carnllwyd, and had a son, Robert, who



Ira Miller

married Elinor, daughter of Sir Roger Vaughan. Robert had a son Ivan or Evan, who married Gwladys, daughter of Llewelyn Powel Vaughan, of Becon, and was the father of John Ragland, who married his kinswoman, Anne Beaufort in Wales, and, emigrating to America in 1723, settled in Hanover county, Va. Evan Ragland, son of John and Anne (Beaufort) Ragland, married Susanna Lipscomb, and had a son, John, who married his cousin, Elizabeth Pettus. Samuel, son of John and Elizabeth, married a Williams, and had Susan Ann, above referred to as the wife of James Quinn Miller, and the mother of Ira Miller, the subject of this sketch.

Ira Miller was born in Cadiz, Ky., April 22, 1848. He attended the public schools, and when arriving at the age of nineteen, he found employment as clerk and salesman with the firm of Topf, Long & Co., of Evansville, and afterwards with J. W. Morrill & Co., of Louisville, and Charles B. Smith & Co., of New York city. He continued with these firms as salesman many years, after traveling in their interests and becoming acquainted with trade, not only in the United States, but also in the West Indies and Mexico. He finally became a partner in the house of C. B. Smith & Co., and while with them became a purchaser of stock in the American Whip Company.

As a stockholder in that company, he became more or less informed of its management and condition. He found that the manufacture of whips was carried on by a number of concerns competing with each other, and selling at such rates as precluded the possibility of conducting business with profit. He soon became president of the company, and began at once to introduce such methods of manufacture and sale of goods as led to cheaper purchases of materials and better prices for products. His object was to buy the best raw material that could be found, to use the utmost care in the various processes of manufacture, and to turn out an article which was the best that could be made, entirely regardless that other manufacturers were, by cheap goods, underselling him in the market. He was shrewd enough to realize that consumers wanted a good article, and that a thoroughly-made whip, if costing a little more, would be found the cheapest in the end. Following this policy, and putting expert salesmen on the road, he soon placed his company on a solid foundation, and on a dividend-paying basis. His energies were exhaustless, he kept his ideas abreast of the times, and his plans were far-reaching. But the old spirit of underbidding competition still existed, and to extinguish this spirit became his aim and object. He knew the value of consolidation and advocated it. It was tried and failed. All the while, however, devoting himself to the task of perfecting the policy of his own company, and bringing its business as near the point of perfection as possible, he soon found that many of the obstacles to some kind of consolidation or combination, which his competitors had heretofore placed in his way, were gradually removed.

As one after another of these obstacles disappeared, he made himself the owner of shares in other companies, and by degrees so used his influence as to lead to the organization of the United States Whip Company, of which he became general manager. In this position he was given full scope to perfect and carry out his long cherished plans. This company is not a consolidated company, nor is it in any objectionable sense a combination or trust. Each branch of the company makes and sells its own product as before, but is only controlled in its policy. Purchases of raw material are made for each and all under the direction of the company, and are thus made without disastrous competition at more favorable rates. The result has been satisfactory, steadying the trade and effecting the manufacture of goods at reduced cost, yet with a profit before unattainable. Thus manufacturers and con-

sumers have alike felt the benefits of its operation. By no means the smallest advantage derived from the formation of the company has been that connected with credits. Its credit system is, of course, so conducted that the standing of dealers is known to every branch, and it thus becomes impossible for a dealer, who has lost his credit with one manufacturer to impose on another. Bad accounts thus became more rare, and the saving in this respect is practically a saving in the cost of production.

This company, so beneficial to all concerned, is the creation of Mr. Miller, and to his sagacity, prudence, practical knowledge and thorough integrity, its success is due. Mr. Miller has traveled far and wide, both in his own country and in Europe, and by his thorough knowledge of the trade, of the wants of the people, and of the changing fancies and fashions in whips, as in everything else, he is able to give points to every branch of the company and enable all, not one alone, to keep up to the times. The headquarters of the United States Whip Company are in Westfield, Mass., and there Mr. Miller may be constantly found, either in his office giving unwearied attention to its affairs, or in his comfortable and commodious home in the enjoyment of those domestic pleasures which are his chief relief from the cares and labors of business.

Mr. Miller married, October 3, 1885, Frances Eliza, daughter of Charles B. Smith, of Hartford, and has three sons and one daughter. He neither wishes, nor would he accept, public office, but among the citizens of his adopted town he is held in the highest respect, and they would be glad at any time, in the administration of public affairs, to avail themselves of his wise counsel and executive ability.

HERBERT NICHOLS KINGSBURY.

THE great-grandfather of Herbert Nichols Kingsbury came to New England from Wales not far from the time of the American Revolution and settled in Connecticut. In 1799, he removed to Canton, St. Lawrence county, N. Y., where he died at the age of eighty-two. It is probable that he married after his arrival a wife by the name of Lothrop, a descendant of Rev. John Lothrop, who came to New England in 1634, and was settled in that year over the church in Scituate, Mass., and in 1639 over the church in Barnstable, Mass. The third Separatist church in England was organized in Southwark, London, in 1592, and Rev. John Lothrop, who was one of its first pastors, was imprisoned a short time for non-conformity before his emigration to this country. Lothrop Kingsbury, a son of the first ancestor of the subject of this sketch, married Olive Dimock, and had a large family. He lived and died in Canton, where he carried on the business of a millwright and manufacturer. Albert Gallatin Kingsbury, son of Lothrop, was born in Canton, N. Y., April 27, 1818, and, after completing his education in the public schools, carried on the business of farming in that town until he was twenty years of age. He then removed to Brasher, N. Y., where he carried on the same business until 1867, when he removed to Stockholm, N. Y., where he is still living. He married Elvira, daughter of Capt. Guy Carleton and Rhoda R. (Richardson) Nichols, of Stockholm, who was a native of Agawam, Mass.

Guy Carleton Nichols was a man, to whose career considerable interest attaches. His grandfather, Ebenezer, was in the old French and Indian War, and his powder horn has been preserved in the family, bearing the following inscription: "Col. Ebenezer Niccolls his powder horn Lake George Oct. 17, 1755. Adieu to Lake



N. F. Thompson

George." His son, Ebenezer Nicolls, married Olive Bacon, one of three sisters, and said to have been a granddaughter of Lord Bacon. He lived in West Springfield, Mass., and had four children, one of whom was Guy Carleton, born January 27, 1793. Guy Carleton was in the United States service in the War of 1812, and was present at the battle of Plattsburg. After the war, he married in Barre, Vt., January 19, 1816, Rhoda R., daughter of David Richardson, and settled in Waitsfield, Vt., as a clothier. He had four children in Vermont: Lucius W., February 22, 1817; Elvira, May 13, 1818, the mother of the subject of this sketch; David Richardson, October 17, 1819; and Rhoda Louise, October 31, 1821. In 1822, he removed his family to Longmeadow, Mass., where a son, Hiram Moffat, was born September 4, 1823. In 1824, he removed to West Springfield, where his sons, Guy Carleton and Lemuel Preston, were born April 9, 1827, and February 11, 1829, respectively. In 1829, he removed to Brasher, N. Y., and finally to Stockholm, N. Y., where three other children were born, one only surviving infancy, Frances Jannett, born October 15, 1837. He died in Stockholm, May 3, 1855, having won a high reputation as millwright and engineer.

Herbert Nichols Kingsbury, son of Albert Gallatin and Elvira (Nichols) Kingsbury, and the subject of this sketch, was born in Brasher, N. Y., October 28, 1853, and was educated in the public schools of that town and at the Lawrenceville Academy. At the age of eighteen he taught school through a winter term in Stockholm, and in the month of March following, in the year 1872, removed to Springfield, Mass., where for a few months he was employed in the family of Charles A. Nichols, a publisher in that town. After leaving Mr. Nichols, he was employed until 1876 as a clerk with the American Express Company, being located at various times in the company offices in Springfield, Holyoke, Pittsfield and Westfield. His next position was that of clerk of the American Cigar Company, having its headquarters in Westfield, and, after serving in that capacity three years, he was made secretary of the company and held that office until 1886.

While in the employ of the American Express Company, he removed to Westfield in 1874, and for a time devoted his evenings to the study of law in the office of James Robert Dunbar, of Westfield, now judge of the Superior Court. A failure of his eyes, the result of study, necessitated its abandonment, and turned the steps of his career from the paths of the legal profession to a continuance in the business field. After a service of five years with the American Cigar Company, he went to South America in 1881, and, during an absence of five months, recuperated his health, which had been seriously impaired. On his return he resumed his position with the Cigar Company, and, until the close of his connection with the company was a traveling agent on the road.

In 1886 Mr. Kingsbury was made assistant secretary of the Bay State Beneficiary Association, in Westfield, and, after two months' service in that capacity, was made secretary. In April, 1887, he organized the Fraternal Accident Association, which received its charter in that year. James Noble was made president and Mr. Kingsbury secretary and treasurer. This association is confined in its operations to members of the Order of Odd Fellows, and, with agents in every state and in Canada, has, under the skillful management of Mr. Kingsbury, built up a large and still increasing business. The headquarters of the association are in Westfield. The sound judgment of Mr. Kingsbury and his fertility of resources in establishing a system of accident insurance which the fraternal ties, binding Odd Fellows together, could not fail to make successful, illustrate his character as a business man. In his relations with his fellow-citizens the highest confidence is felt in his capacity

and integrity, and places of trust and honor have been freely offered to him. He is a director of the Hampden National Bank, of Westfield, and the Westfield Atheneum, one of the trustees of the Woronoco Savings Bank, president of the Berkshire Health and Accident Association, treasurer of the International Association of Accident Underwriters, composed of all the leading accident companies in the United States and Canada.

Mr. Kingsbury married, January 17, 1877, Jane Ellina, daughter of Silas C. Avery, of Westfield, and has one son, Harold Avery Kingsbury, born August 27, 1882, who is now at school.

CHARLES JAMES KITTREDGE.

THE family to which the subject of this sketch belongs was a prominent one in the town of Billerica, Mass., as early as the first part of the eighteenth century. The town of Tewksbury was set off from Billerica, December 17, 1734, and on the territory forming the new town there resided no less than eleven families bearing the name of Kittredge. Among these was William Kittredge, from whom Charles James Kittredge claims his descent. William Kittredge, the second, son of the above William, was born in Tewksbury, April 25, 1737, and died in that town September 17, 1796. He married Rebecca Shedd and had nine children, William, born July 23, 1762; Abel, born June 4, 1763; John, born July 2, 1764; Rebecca, Rhoda, Mary, Rhoda again, Judith and Hannah. William, the oldest of these, settled as a physician in the town of Conway, Mass., and afterwards in Pittsfield, where he died. Abel, the second son, studied medicine with his brother in Conway and practiced in Dalton and Hinsdale, Mass., dying in the latter town, June 4, 1847. He married Eunice Chamberlain, of Dalton, and had Miranda January 22, 1798, who married Horatio Lombard; William C., February 23, 1800, who practiced law in Vermont and became a Judge and Lieutenant-Governor of that state, and died in 1870; Benjamin F., July 11, 1802, who practiced medicine in Hinsdale and died in 1862; Judith S., March 5, 1805, who married a Doctor Wells; Mary W., May 31, 1807, who married Charles H. Plunkett, of Hinsdale; Eunice C., January 18, 1811, who married Hiram Paddock, of Hamilton, N. Y.; Sophronia, July 24, 1812, who died in infancy; Sophronia again, November 10, 1815, who married a Mr. Bardin, of Hamilton, N. Y.; Charles James, April 1, 1818, and Abel, October 10, 1822, who married Sarah Hooker.

Charles James Kittredge, one of the above children, was born in Hinsdale at the date above mentioned, and was educated in the public schools of that town, at the Lenox and Westfield academies in Massachusetts, and at the Castleton Seminary in Vermont. He was employed on his father's farm until he was twenty-three years of age, when he became engaged in mercantile business in Hinsdale in company with his brother-in-law, Charles H. Plunkett. After ten years spent in this business he became largely engaged in the manufacture of woolen goods on the East Branch of the Housatonic River, which runs through Hinsdale, and so continued until his retirement in 1892. At various times he was connected with four mills, three of which were for some years under the control of the Plunkett Woolen Company, of which he was the president and general manager. The first of these mills, beginning at the upper part of the river, known as the Old Broad Mill, because the goods turned out in it were six quarters wide, was built in 1832 by his brother-in-law, Mr. Plunkett above mentioned, and on his death, in 1861, was incorporated in the above



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J. L. Dunham

Company. The water privilege on which the next mill stands was bought in 1852 by Mr. Kittredge associated with Mr. Plunkett and a mill was built by them, which, in 1861, was also incorporated in the Plunkett Woolen Company. The third mill was also built by Mr. Plunkett in 1855, and became in 1861 the property of the same Company. The first, a Broad Mill, was sold in 1878. The fourth mill with which Mr. Kittredge has been connected, stands on an old tannery site, which Mr. Kittredge bought in 1866, with its tannery building, which was remodeled into a woolen mill. This mill was bought in 1890 by Zenas Crane, of Dalton, son-in-law of Mr. Kittredge, and, with the exception of a short time, when it was under lease, it has not been run since that time.

Aside from his business operations Mr. Kittredge has, for many years, acted the part of a public-spirited citizen, on whom his fellow-townsmen have been glad to bestow positions of honor and trust. In the advancement of the moral and intellectual welfare of his town he has always been ready to lend a generous helping hand, and the prosperity of the Congregational Church, of which he has been long an active member, and since 1860 a deacon, and the beneficent influences of the Public Library, of Hinsdale, both attest his usefulness. He has been at various times Selectman, member of the School Committee, Trial Justice, County Commissioner, Trustee of the Berkshire County Savings Bank, State Director of the Boston and Albany Railroad, and was Representative in 1868, and State Senator in 1869 and 1870. As Representative he was a member of the Committee on Banks and Banking, and as Senator a member of the Committee on Manufactures and of Charitable Institutions, and in 1870 a member of the Committees on Railroads and of Banks and Banking.

Mr. Kittredge married June 17, 1845, Frances, daughter of James Birchard, of Riga, N. Y., and besides three children who died in infancy, has had the following children, all of whom are living: James Birchard, born August 22, 1846; Ellen Judith, June 15, 1852, who married Zenas Crane, of Dalton; Clara Barrett, June 30, 1854, who married James Arthur Crane; Henry Plunkett, May 27, 1857, who married Louisa, daughter of Murray Crane.



J. N. DUNHAM.

JARVIS NELSON DUNHAM was born in Savoy, Mass., May 1, 1828. His education was acquired at the common schools in his native town, where his quickness of apprehension and application as a scholar soon rendered him proficient in the studies of that period; and there was laid the ground-work of his subsequent successful business career. In 1850 he began the study of law in the office of the Hon. Daniel Noble Dewey, at that time secretary and treasurer of Williams College. He was admitted to the Berkshire Bar in 1856, and began the practice of his chosen profession in Adams and North Adams. Here he remained in the enjoyment of a lucrative practice until 1862, when he accepted the office of secretary of the Western Massachusetts Insurance Company, of Pittsfield. His quick judgment and keenness of perception soon demonstrated his great fitness as an executive officer, and in 1866 he was made secretary of the Springfield Fire and Marine Insurance Company of Springfield, Mass., at that time, and now the largest fire insurance company in the state. Here he remained a few years, discharging the duties of his office with eminent ability, when he returned to Pittsfield, and opened an office for the transaction of a general insurance business, and met with great success. Some years later, when President Smith, of the Springfield Fire and Marine Insurance

Company, died, Mr. Dunham was called to the presidency of that company, and continued until his death, December 2, 1891.

He married in 1850 Eliza Cummings, of Bennington, Vt., and they have one daughter, Helen M., wife of Robert L. Martin, of Springfield, Mass.

Bradish Dunham, the father of Mr. Dunham, was a life-long citizen of Savoy, where for more than twenty years he was a leading man of that locality, and enjoyed the esteem of his fellow-citizens in a remarkable degree. He was selectman thirteen years, representative in the General Court, and in 1820 was a delegate to the Constitutional Convention.

Mr. Dunham was a man of marked prominence in his town. Possessing an affable disposition, a taste and an ability for the discharge of public duties, a judgment well-balanced and almost uniformly correct in its results, and an integrity of character that was never touched by whisper or reflection, it is not strange that he was selected by his fellow-citizens to fill various positions of responsibility and trust. He was for many years a director and vice-president of the Agricultural Bank, and a director in the Berkshire Life Insurance Company of Pittsfield, and a director in the Boston and Albany Railroad from 1879 until his death. He was also president of the Renfrew Manufacturing Company at Adams.

Politically Mr. Dunham was a Democrat, and an earnest advocate of the principles of that party. He represented his district in the Legislature in 1874, 1877 and 1878; and in 1878 and 1884 was the Democratic candidate for member of Congress from the Berkshire and Hampden district.

Personally Mr. Dunham represented the best type of that pure, straightforward, stalwart virtue which has proven New England's best inheritance from the mother country. His sympathies were given to all good things. He was a man broad in his views, true and steadfast in his convictions and feelings. Generous, noble-hearted, sagacious, enterprising, of untiring energy and spotless integrity, far-seeing, judicious, ever throwing his influence and his means on the right side, he presents a character for admiration and example which is fragrant with all the best qualities of our New England life.

ABNER MARSHALL SMITH, M.D.

ABNER MARSHALL SMITH, M.D., son of Abner and Mary Driscoll Smith, was born in Dalton, Mass., May 29, 1829. Early in life he decided upon the medical profession as his life work, and after having availed himself of the educational advantages afforded by Worthington Academy, he entered the Berkshire Medical College at Pittsfield, Massachusetts, from which he graduated, and began the practice of his profession with the late Dr. Henry Ferris, at Dalton. He remained here about four years, when he removed to Worthington and continued in practice in that town six years. Always alive to the welfare of his fellow-citizens and to the advancement of the general interests of the community wherein he resided, his worth was quickly recognized by his townsmen, and while a resident of Worthington he represented the town two years at the General Court. After remaining here a few years, he sought a wider field for practice. Pittsfield being the largest and most important town in Western Massachusetts, he removed thither in 1856 and at once entered upon that career which later made his name a household word throughout Berkshire county. He rose rapidly in his profession and remained here in active practice until his death, in 1889.



Huer. M. / reich, M. R?

Dr. Smith was prominent in medical societies and manifested a deep interest in the Berkshire Medical Society and the Pittsfield Medical Society. He was president of the former a number of years, and of the Pittsfield Medical Society many years in succession, and through his influence and his great love for his profession and his brethren an unusual harmony and kindly feeling prevailed. At the one hundredth anniversary of the Berkshire Medical Society, Dr. Smith, after calling the meeting to order, gave the following short but pithy speech: "I welcome you, friends and brethren, in the name of the Berkshire Medical Society. As we stand here, we realize that hands touch hands until we reach back a century, a chain of one hundred years, one hundred links burnished by brave deeds and hard-fought battles. It is good to be here and to present the Berkshire District Medical Society as the one-hundredth link now welded to the past. For a century our members have been true men and brave, standing firm with their heels on quackery and their arms reaching for the everlasting truth. We hope for the perpetuity of this society, and I trust that when the trumpet sounds and the earth crumbles to dust, there may be found on our records this entry, 'Adjourned to meet on the last Wednesday of next month.'"

In 1849 he united in marriage with Betsey A., daughter of Ansel and Gratia Evans, of Bainbridge, N. Y., and their family consisted of five children, two having died in infancy. The other three arrived at maturity. The eldest, Gratia, wife of the late Samuel W. Bowerman, died in 1892. Carrie H. Smith is still living in Pittsfield, and Ethelyn M. in Missouri. After a wedded life of thirteen years, his wife died, and in 1864 he married a sister of his first wife, Miss Rhoby H. Evans, of Bainbridge, N. Y., by whom he had three children, namely, Dr. Marshall E. Smith, who is a physician in West Stockbridge, Mass., Lura R., wife of Dr. Dudley Leavitt, of Pittsfield, Mass., and Kate H., wife of Seymour Lowman, a lawyer residing in Elmira, N. Y.

Dr. Smith was actively interested in everything tending to advance the welfare of his adopted city, and for several years was chairman of the school committee. He became a member of the Republican party upon its organization, and during life was a staunch exponent of its principles. He was a member of St. Stephen's Episcopal parish, and one of its most valued vestrymen. He was also a member of Crescent Lodge, F. and A. M., and Berkshire Lodge of Odd Fellows.

Although Dr. Smith was a powerful man, of splendid physique, over six feet in height, strong in his likes and dislikes, his character was sweet as well as grand, and his nature simple and true as a little child's. His ambition from youth was to acquire learning and honor. These he obtained. He was tolerant of a fault and charitable to the last, as his multitude of patients cheerfully testify. To his patients he was faithful, sympathizing as a friend in their troubles, and he gave to his cases the most vigilant attention, his best skill, and brought into his practice a kindly manner. Dr. Smith was positive and frank, but at the same time most genial and courteous. He occupied an important position in the life of Pittsfield and Berkshire counties, and wielded that position and influence always for good. In his medical life he adhered faithfully to the teachings of the Allopathic school of medicine, from which he graduated, but not without keeping apace with its advances. Faithfulness in all things was among his marked characteristics, and in professional faithfulness, both to the principles of his cult and to his patients, he never failed.

JOHN LELAND MILLER.

IN the middle of the last century William Miller, a surgeon in the British army, was commissioned to adjust a question of jurisdiction between Maryland and Virginia. He afterwards resigned his commission and settled in Warren, R. I. His son, William, born in Warren, became a shipbuilder, and finally removed to Woonsocket, R. I. He was employed as an engineer by the government, and in 1788 was sent west to build a fort on the Ohio river at Marietta. At a later time he was sent to perform the same service on the Muskingum river, but neither he nor any of his party ever returned. Caleb Miller, son of the last William, born in Woonsocket in 1786, removed with his mother after his father's death to Adams, Mass., where she died at the age of 1815 at the age of ninety years. He married Nancy, daughter of Calvin Mitchell, of Scotch origin, who was born in Smithfield, R. I., and was adopted when an infant by her uncle in Adams. Caleb Miller died in 1861.

John Leland Miller, son of Caleb and Nancy (Mitchell) Miller, was born in Adams June 2, 1813. He attended the public schools of his native town and the academies in Adams and Williamstown, but, owing to feeble health, during the years of his youth he studied much at home and under the care of private tutors. At the age of seventeen he went to New York, where he spent two years as clerk in a store, and then obtained a position as salesman in a business house in West Troy. After thoroughly familiarizing himself with his business he bought out his employer, but at the end of a year was burned out and returned home. After an illness of nine months, he began to study medicine, spending one year at West Troy and two years at the Berkshire Medical School, and attending medical lectures in Woodstock, Vt. He took his degree at the Berkshire Medical School in 1837, and, soon after his graduation, he went to New Orleans, and was appointed surgeon to a surveying party under Captain Talcott, of the United States Topographical Engineers, operating at the mouth of the Mississippi river. He then went to Pensacola, and in November, 1838, reached New York, after having been shipwrecked on Gun Key in the Caribbean Sea. After his return he settled in practice in Providence, R. I., where he remained five years.

It was during his residence there that the Dorr Rebellion occurred, and he was appointed to serve as surgeon in a brigade of militia commanded by General Stedman. He afterwards returned to Pittsfield, Mass., and devoted a year to the study of his profession, preparatory to his appointment in 1844 as professor of Anatomy and Physiology in the medical department of Illinois College in Jacksonville, Ill. In 1847 he resigned, and was appointed assistant-surgeon of volunteers on the 27th of May in that year, for service in the Mexican War. On the 13th of July, 1847, he was appointed surgeon, with the rank of major, and, joining the army at Vera Cruz, was assigned to take charge of the army hospital at Jalappa. At the close of the war he returned to Pittsfield, where he remained two years recruiting his health, which had become much impaired during his service in Mexico. He then returned to Illinois, and engaged in arduous practice three years in the vicinity of Springfield. For his service in the war, he was granted a quarter section, one hundred and sixty acres, the grant being No. 6,309, Danville district, Ill., and he added to these by purchase enough to make eleven hundred acres. On this land he established a stock farm, and at a later time, when the land had risen largely in value, he sold out at a profit, which



J. Leland Miller.

laid the foundation of the fortune which he afterwards enjoyed. On the territory comprised in his purchase, the town of Fairbury now stands, with a population of about seven thousand. In 1855 he again returned to Pittsfield to regain his health. The climate of the west and south was not suited to his naturally feeble constitution, overworked in his pioneer practice, and now thoroughly undermined. He was the only experienced surgeon in that section, and to visit a patient it was no uncommon thing to ride fifty miles, necessarily on horseback so as to swim the bridgeless streams on the trackless prairies. Therefore, he abandoned the practice of his profession, except that of consulting physician and surgeon, for which he received no other compensation than the satisfaction of being instrumental in relieving suffering humanity. In 1856 he purchased a farm of two hundred acres, one-half mile west of the Boston and Albany Railroad station in Pittsfield, which he sold in 1865. In recent years it has been known as the Edward Learned place. While residing in Pittsfield, he was appointed, May 2, 1861, surgeon of the Sixth Brigade of Massachusetts Militia. This brigade was disbanded, and he received his discharge February 28, 1862, being retained, however, as reserve surgeon, and being called to Alexandria in the following September.

In 1866 Dr. Miller purchased a farm of one hundred and ninety-eight acres in Sheffield, Mass., including Mt. Barnard, which received its name from its former owner, Colonel Barnard, the father of Gen. John G. Barnard, of the United States army, and of Frederick Augustus Porter Barnard, president of Columbia College. Dr. Miller called his farm the Mt. Barnard farm, and upon its acres he made his permanent home. The place was suited to his tastes. He was fond of agriculture, and as an amateur farmer was excelled by none in Berkshire county.

He was made president of the Housatonic Agricultural Society in 1876, when its fortunes were at a temporary depression, and by his economy and energy brought it up to a flourishing condition. His fondness for agriculture was the outgrowth of his love of nature; and the study of trees, and shrubs, and flowers, and of the various crops, which depend for their development upon the skill of man, was a recreation to which he turned in his hours of leisure. With his gun and dog for companions, he loved to roam through the forests of the neighboring hills and exercise his superior skill as a hunter and marksman. He wasted no time. The study of his profession was never-ending, and he was recognized as a physician and surgeon always abreast of the times and fully informed in the latest and most approved methods of practice and surgery. As a proof of his standing in the profession, it may be stated that he was president of the Berkshire District Medical Society, president of the Alumni Association of the Berkshire Medical College, a member of both the Massachusetts and American Medical Society, and frequently acted as delegate. The farm and the hunting-field occupied a portion of his time, while the remainder was occupied in the performance of duties of a more public nature devolving on him, and in errands of benevolence and charity. He sought no places of honor or trust, and with the exception of the position of trustee of the Savings Bank in Great Barrington, he was unwilling to accept any office imposing on him responsibilities out of tune with his legitimate tastes. He was an Episcopalian, but no sectarian, as he gave freely towards the support of other religious denominations. His religion was not of the emotional kind, but consisted of his high sense of obligation towards the Creator and the consequent duties of life. It was obedience to his principle which caused him so jealously to guard the high standing of the medical profession, because "the life of a true physician is most like that of Christ, who first healed the body, then cured the sin-sick soul; but often a physician must first cure the mental

malady, then the physical healing naturally follows, thus proving that the physician is a ministering spirit as truly as a preacher of the Gospel."

Dr. Miller was one of the first members of the Berkshire Historical and Scientific Society, and as such was exceedingly interested in the records of his adopted town. At the annual town meeting, April 3, 1876, it was voted that the centennial anniversary of the action of the town, June 18, 1776, be observed in a fitting manner, and that Rev. Orville Dewey, D.D., Oliver Peck, M.D., J. Leland Miller, M.D., and Rev. Mason Noble, Jr., be a committee to arrange for such a celebration as would properly commemorate the prompt and energetic patriotism of the town. He was also active in the maintenance of the High School and the Free Town Library, to the latter of which he left a bequest of five hundred dollars.

He was also a devoted friend of the cause of education. In June, 1888, he gave to Williams College the sum of \$40,000 to found a professorship of American History, Literature and Eloquence, subject to an annuity of four per cent. to himself and his wife during their lives, it being stipulated by him that any interest not absorbed by the annuity should be added to the principal until it reached the sum of \$50,000, and that whenever the annuity for any year should not be called for within a specified time, all claim to it should be considered as relinquished. Neither Dr. Miller during his life, nor his widow afterwards, called for any of the annuity until 1893, when the sum of \$50,000 was reached. Since that date Mrs. Miller has only called for \$500, leaving the remainder for the benefit of the Miller Professorship Fund. This sum of \$500 she devoted to the purchase of the scientific cabinet of her Alma Mater, and presented it to Northwestern University, Evanston, Illinois. This cabinet was the private property of the widow of W. P. Jones, founder and president of Northwestern Female College, whose charter, obtained in 1856, was transferred to Evanston College for Ladies in 1871, thence transferred, in 1873, to Northwestern University, which then adopted the *alumnæ* of said colleges and became a co-educational institution. Mrs. Miller belongs to the class of '60. Her maiden name was Julia Atkins, and she was born near Morris, Ill., July 28, 1834. She is the daughter of John and Anne (Alden) Atkins, and is descended from John Alden, one of the "Mayflower" Pilgrims, through Joseph Alden, born 1624; Isaac, born about 1660; John, born 1694; Benjamin and Adam Alden, the last of whom was born in 1785. She was married to Dr. Miller March 4, 1862, and has no children. She lives on the Mt. Barnard farm, in Sheffield, engaged in every good work calculated to promote the mental, moral and social welfare of the community of which she is a respected member.

Dr. Miller died April 17, 1889, and lies buried in the town of Adams, midway between Greylock and his native mountain-home farm. He was the last surviving surgeon of the Mexican War, and was in the receipt of a pension during the last two years of his life, under the act of January 29, 1887.

WILLIAM HEEBNER GROSS.

IN the town of Lee, Mass., and near the banks of the Housatonic river, an extensive marble quarry is in full operation, the product of which bears a high reputation, and has been largely used, not only in Massachusetts, but also in the chief cities of other states in the Union. The marble of this quarry was selected for the construction of the two new wings of the Capitol at Washington, and from this quarry the marble was furnished for the new City Hall in Philadelphia and the



W. H. Green

State House extension in Boston. Besides these public buildings, the Drexel Building in Philadelphia, and the New York Clearing House, the Metropolitan Insurance Building in New York, and numerous bank and trust company buildings in various cities, furnish abundant and excellent examples of its beauty and durability. This quarry is operated under the immediate management of William Heebner Gross, the subject of this sketch.

Mr. Gross is the son of Thomas Jefferson and Catherine Heebner Gross, and was born in Trappe, Montgomery county, Pa., May 1, 1845. Samuel Gross, his grandfather, was an enterprising farmer in Trappe, and his father, Thomas Jefferson Gross, was for twenty-one years assistant clerk and clerk of the Pennsylvania House of Representatives in Harrisburg. Until he was eight years of age Mr. Gross remained in Trappe, attending, during his school years the public schools of that town, and then removed with his father's family to Lee, Mass. He afterwards returned to Trappe, and for two years was a student of the boarding school of Abel Rambo, his brother-in-law. After three years' further instruction in the Sand Lake boarding school, he returned to Lee, and was employed by his uncle, Charles Heebner, in the marble quarry owned by him in that town, and now operated by Mr. Gross. It was during the ownership of the quarry by Mr. Heebner that the marble was furnished for the Capitol at Washington. Mr. Heebner died in 1868, and after his death the quarry was bought by Francis S. Gross and Charles H. Gross, brothers of the subject of this sketch, and Mr. Gross was employed by them as superintendent. While he held this position the contract was made in 1873 to furnish the marble for the Philadelphia City Hall. In 1883 he entered into a partnership with his brothers, under the firm-name of Gross Brothers, which continued until 1894. In that year he leased the quarry, and since that time he has been associated with Gray & Sons, builders, of Philadelphia, in the operations of quarrying, cutting and manufacturing.

The plant of the quarry consists of two hundred acres of land, ten of which contain marble, extensive sawing and cutting shops and about four miles of railroad track. Three hundred men of different nationalities are employed, and the annual product is about one hundred thousand cubic feet. The deepest pit of the quarry is about eighty feet below the surface, and the blocks of marble as fast as quarried are raised by steam power to railroad tracks and carried to the saw mill, where, while still on the tracks, they are run under the saws, and afterwards carried to the cutting mill. In this last mill a busy scene is presented by the operations of a hundred men engaged in cutting after plans and drawings of architects and expert draftsmen, mouldings, door sills, window caps, brackets, columns, and the plainer dimension blocks for outside walls and interior walls and floors. While Gray & Sons in Philadelphia are efficient in securing contracts within the sphere of their operations, Mr. Gross not only looks after business nearer home, but exercises a personal oversight in the management of the quarry.

The pressing demands of his legitimate business have left Mr. Gross little time for pursuits of a public or political character. He was a member of the House of Representatives in 1884, and is an active member of the Masonic Lodge of Lee. Aside, however, from his career as a Representative, and the performance of his Masonic duties, he has devoted his thoughts and energies to the occupation as quarryman, of which by inclination, taste and training he has become a master. His home is near his work, and, though unmarried, it exhibits all the marks of refinement and taste, which are usually thought to be dependent on the female hand.

ERWIN FRANK BARNES.

JOHN BARNES appeared in Plymouth, Mass., in 1621, and lands owned by him in that town are still occupied by some of his descendants. It is possible that he came from the neighborhood of Scrooby, where the Pilgrim Church was organized in 1606, as the name is a common one at the present day in the town of Bawtry, about a mile and a half from that town. It cannot be ascertained with certainty, but it is quite possible that John Barnes was the ancestor of the subject of this sketch. Elisha Barnes, the grandfather of Erwin Frank Barnes, born in Southington, Conn., removed to West Stockbridge, Mass., about the time of the Revolution, and married Violet Ford of that town. His son, Thomas William Barnes, born in West Stockbridge in 1811, married Zylpha, daughter of James Arnold of that town. On Williams river, in West Stockbridge, there stood many years a forge, which was supplied with raw material from the mines of iron ore in the neighborhood. This forge, with its water privilege, was bought in 1848 by Alfred and Charles S. Platt, and on its site they built a mill and carried on a general milling business. In 1851 Alfred Platt went out of the firm, and Thomas William Barnes became associated with Charles S. Platt, under the firm-name of Platt & Barnes. At a later date John P. Pomeroy became a member of the firm, and its name was changed to Platt, Barnes & Co. The firm continued as thus constituted until the subject of this sketch became connected with it.

Erwin Frank Barnes, the son of Thomas William and Zylpha (Arnold) Barnes, was born in West Stockbridge March 14, 1846. His education, though not a collegiate one, was carefully attended to by his father, and was as good as could be obtained outside of college walls. After attending the public schools of West Stockbridge he became a pupil in the Hudson River Institute in Claverack, a town in New York between West Stockbridge and the Hudson river, and afterwards attended the South Berkshire Institute in New Marlboro, and also enjoyed the privilege of the instruction of Marshall Warner in his private school in Stockbridge. After leaving school he spent one year as clerk in a store in that part of Great Barrington, Mass., called Housatonic, and in 1872 entered the employ of Platt, Barnes & Co. In 1875 he became a member of the firm, which continued unchanged until Mr. Pomeroy went out in 1880. Thomas William Barnes died in 1885, and, with a membership consisting of Charles S. Platt and Erwin Frank Barnes, the firm continued under the name of Platt & Barnes until Mr. Barnes bought out his partner in 1892. Since that time Mr. Barnes has carried on the business of milling alone. He has a good mill, thoroughly equipped, supplied with water-power of twenty-eight feet head, and besides general milling, his chief business and his specialty is the manufacture of self-raising buckwheat flour. His facilities for the manufacture of this increasingly popular article include a patent hulling-machine of great economic value in the industry. The farmers of Southern Berkshire have become with the patronage of this mill extensive raisers of buckwheat, and find a ready and profitable market for their product. During the autumn months country teams loaded with buckwheat are to be met on every hand within a range of ten miles, bringing their grain to the mill, while farms at a greater distance send their product by rail. The flour is packed in neat paper packages with printed labels, and for the most part is sold directly on orders from retail dealers without the intervention of middle men with their commission. Mr. Barnes has one selling-house in Providence, and occasionally employs



Ervin F. Barnes



A. H. Arnold

canvassers to solicit orders. He carries on his business intelligently and conservatively, and with certain though not extravagant profits. His home is on the road about midway between his mill and the station at Housatonic, and the management of his business receives his undivided attention.

Mr. Barnes is a Republican in politics, and in 1895 represented in the Massachusetts General Court the Sixth Berkshire Representative District, composed of the towns of West Stockbridge, Alford, Egremont and Great Barrington. In 1877 he received the appointment of postmaster at Rock Dale Mills, and has held the office ever since. In his church relations he is Orthodox Congregational, and to the society, of which he is a member, he is a liberal contributor.

Mr. Barnes married, January 14, 1874, Augusta M., daughter of John M. and Fanny Baldwin Joyner, and cousin of Hon. Herbert C. Joyner, the distinguished lawyer of Great Barrington. He has four children: Charles D., sixteen years of age, now a pupil at the Sedgwick Institute in Great Barrington, Miriam E., Lena A., and Thomas William.

NASON HENRY ARNOLD.

NASON HENRY ARNOLD, son of William Searle and Lucina Arnold, was born in Thompson, Conn., September 3, 1847. His father, William S., was a manufacturer and merchant, a strict disciplinarian, and who regarded a constant and attentive devotion to business as among the cardinal virtues, in consequence of which, when young Nason was not at school he was put at work in his father's store. Here his evenings and holidays were spent in close attention to the routine and details of a country store. The experience obtained here, however, naturally developed a fondness for commercial life. He was educated at the district schools of his native town and at Nichols Academy* at Dudley, Mass. While at Nichols Academy he first met Mary Newman, who was also a pupil there, and the affection there formed resulted in their marriage years later. Having decided upon a commercial career as his life-work, he took a course of instruction at Eastman's Commercial College at Rochester, N. Y., and, upon the completion of his studies in that institution, he entered the employ of Hoyt, Sprague & Co., at that time one of the leading woolen houses of New York city, as salesman in their wholesale department. Subsequently he was bookkeeper in one of the departments. His natural aptitude for mercantile affairs was greatly stimulated and developed while here, and his progressive and indomitable spirit soon sought a source of advancement, and in 1866 he came to North Adams and formed a copartnership with W. W. Montgomery, under the firm-name of Montgomery & Arnold, dealers in dry-goods, carpets, etc. This firm continued a number of years, when Mr. Arnold purchased his partner's interest, and thereafter continued the business as sole proprietor. His quick perception and superior business capacity, allied with his almost unerring judgment, quickly placed him in the front rank, and under his energetic management the business rapidly increased, and soon thereafter became one of the leading mercantile houses in Western Massachusetts.

December 15, 1870, he united in marriage with Mary Newman, daughter of Jacob and Sally (Nichols) Newman, who was born in Le Roy, N. Y., and their family has consisted of one daughter, Elizabeth Searle, and two sons, Nason Henry and

* Nichols Academy was founded by Amasa Nichols, maternal grandfather of Mrs. M. N. Arnold.

Frank Newman. Nason H. is a member of the firm of T. W. Richmond & Co., coal dealers at North Adams.

Mr. Arnold died November 4, 1884. He always manifested a lively interest in all matters tending to advance the welfare of his adopted town. He was genial and warm-hearted. He was a prominent member of the Masonic fraternity, and upon his death Composite Chapter, Royal Arch Masons, passed the following resolutions:

At a regular convocation of Composite Chapter, R. A. Masons, held at North Adams, December 3, 1884, the following preamble and resolutions were unanimously adopted:

"WHEREAS, It has pleased the Grand Architect of the Universe to remove from our midst our late companion, N. H. Arnold, and

"WHEREAS, It is but just that a fitting recognition of his many virtues be had, therefore be it

"Resolved, By Composite Chapter, R. A. M., that while we bow with humble submission to the will of the Most High, we do not the less mourn for our companion who has been taken from us.

"Resolved, That in the death of N. H. Arnold, this Chapter laments the loss of a companion who was ever ready to proffer the hand of aid and the voice of sympathy to the needy and distressed of the fraternity. Active and zealous member of this body whose utmost endeavors were extended for its welfare and prosperity, friend and companion who was dear to us all.

"Resolved, That the heartfelt sympathy of this Chapter be extended to his family in their affliction, and that these resolutions be placed on file, and a copy be transmitted to the family of our deceased companion, and to the North Adams *Transcript* and Hoosac Valley *News* for publication.

"GEORGE H. PATRICK,

"RICHARD E. LIDFORD,

"R. L. NICHOLS,

"Committee."

He was an active and popular Sir Knight, and at a regular conclave of St. Paul Commandery the following resolutions were adopted:

At a regular conclave of St. Paul Commandery, Knights Templar, held at North Adams, Mass., December 12, 1884, the following resolutions on the death of Sir Knight, N. H. Arnold, were adopted:

"WHEREAS, In the Divine Providence we have been again reminded of the great truth that we are born to die. Death has knocked at the door of our asylum, and none presumed to say, "Who dare approach?" one of our pilgrim warriors has been summoned, and "there is no discharge in that war," therefore be it

"Resolved, While we mourn his loss, may we not with bright hope believe that it is his gain? We therefore cheerfully submit to the righteousness and wisdom of our Father's Providence, believing that what he appoints is always best.

"Resolved, That we proffer our sympathy to the bereaved family who by the inexorable decree of death, has been so sorely afflicted; that we condole with them in their great sorrow, and assure them, that as Sir Knights of St. Paul Commandery they will always find in the Templar associates of the departed one, hearts and hands to give them aid.

"Resolved, That this expression of our sympathy be recorded in the minutes of our proceedings, and that a copy be sent to the family of our deceased Sir Knight, and that it also be furnished to the press of North Adams for publication.

"W. H. DUMVILLE,

"J. E. DREW,

"GEO. FRENCH,

"Committee."



McDakman Jr

Mr. Arnold was a man of great courage and will. During many years immediately prior to his death he had suffered from a complication of spinal and liver troubles, the latter the result of a severe injury, which would have driven most men into retirement. He bore his affliction with heroic fortitude, and always presented a cheerful exterior that blinded his associates to his actual condition. He bore all sufferings with the sweetest and most unwearying courage and fortitude; no complaint, no murmur of despair, no rebellion against fate passing his lips. He made a magnificent fight for life, and up to within two weeks of his demise he continued in active control of his large business, attending to financial details with marvellous skill and accuracy. He was a man of spotless integrity, of quick apprehension and accuracy, method and faithfulness in business, and these qualities made him an acknowledged leader in the mercantile community, and he was universally recognized as one of North Adams' most honored and esteemed citizens.

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RICHARD N. OAKMAN, JR.

RICHARD N. OAKMAN, JR., son of Richard N. and Julia P. Hawkes Oakman, was born in Hawley, Franklin county, Mass., September 23, 1843, and when a few months old, taken to Provincetown, Mass., where his parents remained until the spring of 1846, when they removed to Montague, and here the boyhood of Mr. Oakman was passed. He attended the district schools at Grout's Corner, now Miller's Falls, and Montague Centre, until 1858, when he entered Powers Institute, at Bernardston, where he was fitted for college. At the expiration of three years of diligent study in this institution, he entered a competitive examination at Boston, and won the state scholarship-at-large. Thereupon he entered Williams College, where he manifested the same close attention to his studies that marked his course at the Powers Institute and during the two years passed at Williams, he took the highest position in his class. While at Bernardston, preparing for college, he taught two terms of district school at Cambridgeport, Vt., and Montague, and during his second year at college, one term at Belchertown, Mass. During a portion of the year 1864 he was overseer of the State Reform School at Westboro. In December, 1864, he left his native state, and going to Kenosha, Wis., secured the position of bookkeeper in the First National Bank of that place, occupying that position until April, 1865, when he went to Michigan as overseer of Dr. Allport's fruit farm, thence to La Salle, Ill., as bookkeeper for Kenosha Coal Company, returning to First National Bank at Kenosha, to take position as teller, in July, same year. In September, 1865, he decided to remove to New York city, and entered the employ of the house of Clement, Hawkes & Maynard, at that time leading cutlery manufacturers. He remained with this firm two years, the first year as bookkeeper and cashier, and the second year as traveling salesman. In October, 1867, he went to Selma, Ala., as treasurer of the Cahaba Coal Company. In August, 1869, he occupied the position as auditor in the custom-house, at Charleston, S. C., and in the following April was appointed deputy collector of customs at that place. In September, 1872, Mr. Oakman returned to Massachusetts, locating at Turner's Falls, where he assisted in the organization of the Crocker National Bank and was made its cashier, which position he occupied until November 1, 1874. During this time also, he was treasurer of the Crocker Savings Institution, and for one year of this period he was treasurer of the Montague Paper Company. From November 1, 1874, to July 1, 1889, he was treasurer and general manager of the John Russell Cutlery Company, and during the

years 1875 and 1876, made his headquarters in New York City. From then to May, 1885, he resided at Turner's Falls, when he removed to Greenfield. In the fall of 1889 he erected, at Greenfield, the works now occupied by A. F. Towle & Son Company, manufacturers of sterling silver and electro-plated ware. In December, 1889, Mr. Oakman went to Europe, where he engaged successfully in gas furnace engineering, constructing several gas works in England and on the continent. He retains his interest in this work. Returning to America in 1892, he took up the management of the A. F. Towle & Son Company at Greenfield, of which company he is president. In 1887 he took upon himself the resurrection of the Lamson & Goodnow Manufacturing Company, manufacturers of cutlery, at Shelburne Falls, and subsequently became the president of the corporation.

Politically Mr. Oakman is a Republican, and in religious faith a Presbyterian. He is prominent in Masonic circles and has always taken an active interest in advancing the welfare of the order. He was made a Mason in Alabama in 1868. He is Past Master of Mechanics' Lodge at Turner's Falls. He has also served as District Deputy Grand Master of Massachusetts and is Past Eminent Commander of Connecticut Valley Commandery.

March 11th, 1868, he united in marriage with Sarah E., daughter of William H. and Sarah Hilton Clark, of Exeter, N. H., and they have one daughter, Anna C., born in Selma, Ala., January 4th, 1869.

Mr. Oakman is a man of great executive ability, and the success of the various institutions with which he has been connected has been largely due to his personal efforts.

Although Mr. Oakman has led a particularly active business life, he has found time to indulge his taste in art, and has collected from time to time during his residence in Europe a collection of art-works which is doubtless without a superior in the commonwealth.



JOHN SANDERSON.

JOHN SANDERSON, who was born July 10th, 1814, traces his ancestry on the paternal side in this country to Jonathan Sanderson, born September 6th, 1740. Mollie Curtis, his wife, was born March 13th, 1748. Jonathan Sanderson was a Revolutionary soldier. He traces his ancestry on the maternal side in this country to Dr. Joshua Morton, who removed from Hatfield to Athol, and was one of the pioneers of the latter town. John Sanderson, father of the subject of this sketch, was born May 21, 1769, and married Lydia Morton. He was a man of sterling integrity, great financial ability, and possessed in a remarkable degree the traits of character which have made the name of New England synonymous with integrity and uprightness. He was a man of great energy, and at the time of his sudden death had amassed what was at that time quite a large property, accumulated principally at the tanner's trade and in agriculture. He never sacrificed his principles for passing popularity, and was among the first to join in the temperance reform and to abandon the uniform custom of those early days of supplying the men of his employ with intoxicating liquors. He was killed on the 25th of July, 1831, being gored to death by a pair of oxen.

The management of the large property, which was left, was thus suddenly thrown upon John Sanderson when only seventeen years of age, but with that rare good judgment, which distinguished his subsequent successful business career, he succeeded to its control and conducted it successfully. He had one brother younger,



John Anderson

Horatio Morton, who survived his father only about four years, these two being the only children. He subsequently removed with his mother to Bernardston, where he has since resided. He has given much attention to agricultural interests, and has one of the most valuable and finest estates in Franklin county. He also owns a large tract of land in Barre, Mass. As an illustration of the interest manifested by Mr. Sanderson in agricultural matters and stock-raising, it may be noted, that in 1862 he raised on his farm in Bernardston, and sold to Bryan Lawrence, of New York city, the great ox, "Constitution," said to be the handsomest, and his dressed weight showed that he was the largest ox ever slaughtered in America. His weight was 3,860 pounds. The animal's skin was stuffed and placed on exhibition in Central Park. Although Mr. Sanderson's business interests have precluded him from holding town offices and devoting his time to the public service, he has been interested in all matters tending to advance the welfare of his town and county, and has aided pecuniarily and otherwise, all valuable enterprises, which in his judgment would tend to develop and aid the neighborhood. Powers Institute has always found in him a liberal supporter, and he has taken a special interest in obtaining for it good instructors, and has contributed liberally in this direction. Sanderson Hall was erected by him, and has been of great value to the town. He has ever opened his hands to all charitable interests, and has seldom failed to respond in a substantial and liberal manner to all appeals which were commended by his judgment. Mr. Sanderson was president of Powers Institute from the decease of Governor Cushman, the first president, until about 1877, and was a member of the Board of Trustees from its beginning for many years. He was also treasurer of Powers Institute from 1857 to 1874. He was a trustee of the Cushman Library, was president of the Bernardston Cemetery Association, also of the Farmers' Club, and was one of the executors of the will of the late Henry W. Cushman.

In religious matters he has ever manifested a deep interest, and contributed liberally to the support of the gospel in this town. Although not a member of any church organization, he has been closely identified with the First Congregational (Unitarian) Society and was parish clerk and treasurer for more than forty years, and always exerted a strong influence in securing able men to fill the pulpit. He also aided largely in the erection of the Baptist Church edifice and was one of the building committee, and not only has he benefited the town largely by contributing to its various religious and educational institutions, but aided generally in a material way in advancing its interests. He has also had the satisfaction and pleasure of assisting many young men when starting in life, both by his advice and judgment and the financial aid which he has rendered them.

Politically Mr. Sanderson was a Whig, and has been a Republican from the organization of that party. He never sought political honors, but during the trying period of 1861 he was elected state senator from this district. He is an honorary trustee and life member of the Franklin County Agricultural Society, and life member of the Worcester West Agricultural Society. He was a trustee in the Franklin Institution for Savings, and upon the organization of the Greenfield Savings Bank became its president and served in that capacity a long series of years. He was also a director for a number of years, and subsequently president, of the Franklin County National Bank. Although having to a large extent retired from active business, the interests with which he has been connected, and with which he is associated at the present time, are almost numberless, and he has the confidence and esteem of his fellow-citizens in a remarkable degree. With all the various institutions with which he has been connected, he has discharged his duties with eminent ability.

Mr. Sanderson, in October, 1840, united in marriage with Mary Osgood, daughter of Elihu Osgood, of Wendell, who died January 27, 1890, and their family has consisted of nine children, as follows: John Horatio, La Valette, O.; Lucien Morton, Henry Hunt, Mary Osgood, Ellery Herbert, Maria Cushman, Lydia and Lucien. Of this number the following are living: John Horatio, Mary Osgood, Ellery Herbert, Maria Cushman, Lydia and Lucien.

Mr. Sanderson has lived during an eventful period in the history of his country and the world, and has seen wonderful changes in human affairs. Commencing life during the first quarter of the century, he has almost reached the close of the last quarter, and may hope to survive to its end. He began in the poor and primitive days of the republic. He now sees it abounding in wealth and the means of luxurious living. Marvellous progress has been made under his eyes in all forms of human knowledge and in all departments of human endeavor. When the management of his father's large property fell to him, he saw no telegraphs, railroads, steamships, nor power printing presses, and he has lived to see these four wonderful inventions, which alone have revolutionized all civilized life. He has seen human slavery annihilated and freedom universal in America.

Although having passed four-score years, his vigorous constitution, in spite of his active labors of a long life, has preserved his intellect unimpaired, and he is passing down towards the twilight of life revered and beloved.

NAHUM CHAPIN.

NAHUM CHAPIN was born in Jamaica, Windham county, Vermont, July 16, 1820. He is the son of Harvey and Matte (Rossa) Chapin, of that town, who removed from Jamaica to Waltham, Mass., in 1824. He attended the public schools of Waltham, and pursued a full course of four years at Smith's Academy, in that town. For the purpose of familiarizing himself with machinery and the process of its manufacture, with the view of entering upon the career of a machinist, he entered, after leaving the academy, the establishment of the Boston Manufacturing Company, in Waltham, in which, after an apprenticeship of four years, he was appointed to the position of overseer. Three years later, in 1840, finding his occupation less congenial to his tastes than he had anticipated, he entered into the provision business in Charlestown, in which he remained about twenty years. In 1860 he entered into partnership with Thaddeus Richardson, under the firm name of Richardson & Chapin, and engaged in the distillery business. This firm continued until 1866, and from that time until 1877 he remained out of active business. In 1877 a new firm was formed, consisting of himself, Ezra J. Trull and Daniel E. Chase, under the firm name of Chapin, Trull & Co., and since that date this firm has successfully pursued the business of distilling, with works in Charlestown and offices in Boston. Mr. Chase left the firm in 1879, and his place was taken by Nahum H. Chapin, who died in 1881. George Francis Chapin became a member of the firm in 1883, and Mr. Trull died in 1886. The name of the firm has continued, however, through the various changes in its membership.

Though faithful and assiduous in the performance of all duties resting on him as a business man, he has found time to participate in public affairs and to share the responsibilities, which he believes every patriotic citizen, as an integral part of a well-governed democratic commonwealth, should feel and truly appreciate. In 1877 and 1878 he was a member of the Massachusetts House of Representatives from ward



Samuel Chapin



J. B. Bright.

five of Boston, which included his residence in the Charlestown district, and was a member of the Board of Assessors of Charlestown from 1867 to the date of its annexation to Boston in 1873, and of Boston from 1873 to 1879. He was also one of the commissioners to carry into effect the annexation of Charlestown to Boston, provided for in the act of the legislature passed May 14, 1873. He has been twenty-one years a member of the school boards of Charlestown and Boston, and the welfare of the schools, especially in the former city, has been largely promoted by his conscientious and unremitting efforts in its behalf. He served in the Common Council of Charlestown from 1856 to 1860, and in the Board of Aldermen in 1861 and 1872. He is a trustee in the Warren Institution for Savings, a member of the Standing Committee of the Universalist Society of Charlestown, a director in the Bunker Hill National Bank, and was for many years a director in the Middlesex Horse Railroad Company and of the Boston Consolidated Street Railway Company. He was for many years a member of the Charlestown City Guards and took an active interest in the welfare of that organization. He married at Waltham in 1841 Lucy, daughter of Zaccheus and Harriet Farwell, and has his residence in the Charlestown district.

JONATHAN BROWN BRIGHT.

JONATHAN BROWN BRIGHT was descended from Henry Bright, who came to New England in 1630 and settled in Watertown, Mass. Henry Bright married Anne Goldstone, who came from Suffolk, England, in 1634. Nathaniel Bright, son of Henry, lived in Watertown, where he married Mary Coolidge. Nathaniel Bright, son of Nathaniel, married Ann Bowman, of Watertown, and had a son, Nathaniel, who married Sybil Stone, of Sudbury, Mass. John Bright, of Waltham, son of the third Nathaniel, married Elizabeth Brown, of Watertown, and died in that town in 1840 in his eighty-seventh year. Jonathan Brown Bright, the subject of this sketch, the son of the above John Bright, was born in Waltham, Mass., April 23, 1800. His mother, Elizabeth Brown, was the daughter of Jonathan Brown, of Watertown, a captain in the army at Lake George in 1758, and a descendant of Abraham Browne, who came at an early date with his wife, Lydia, from England and settled in Watertown. At the age of four Jonathan Brown Bright was sent to the district school, and until he was fourteen occupied himself during vacations on his father's farm. In 1814 he entered Westford Academy and afterwards took lessons of the Rev. Samuel Ripley, pastor of the first parish in Watertown. In 1816 he attended for one term the Framingham Academy and the next year became a clerk in the store of his brother in St. Louis. With the exception of a short time spent in a branch store in Franklin, Mo., he remained with his brother until he became of age in 1821. Soon after that date he opened a retail store in St. Stephens, Ala., on his own account, removing the next year to Selma. After an attack of yellow fever, he removed to New York in 1824 and became a clerk in the house of Blackstock, Merle & Co., cotton brokers, afterwards becoming a partner with Mr. Merle under the firm-name of Merle & Bright, which was finally changed to Merle, Bright & Co.

In 1849 after twenty-five years' residence in New York he retired from active business, and returning to Waltham built a house on the old family estate and made that his home until his death, December 17, 1879. During the thirty years spent in retirement he was constantly engaged in literary pursuits mingled with charitable and other public service. In 1858 he printed a work on "The Brights of Suffolk, England," which was the result of arduous and careful research and labor. At his

death he bequeathed to Harvard College fifty thousand dollars, the income of which was to be divided equally between the purchase of books for the college library and the support of scholarships to which Brights lineally and legitimately descended from Henry Bright, the first American ancestor of his family, were to have priority of claim. One who knew him well and had the opportunities of a pastor of the Unitarian church, of which he was a devoted member, said of him that "he gave time, labor and money to many good causes public and private, and gave with a kindly, cheerful spirit, yet so unostentatiously and so wisely that men's attention was more taken up with the results of the action than with the action itself."

Mr. Bright married in 1827 Mary Huguenin Garbrance, who died in 1830. An only child married in 1861 her cousin William Ellery Bright, and after the death of her father became the occupant of her father's estate.

ABRAM STICKNEY FRENCH.

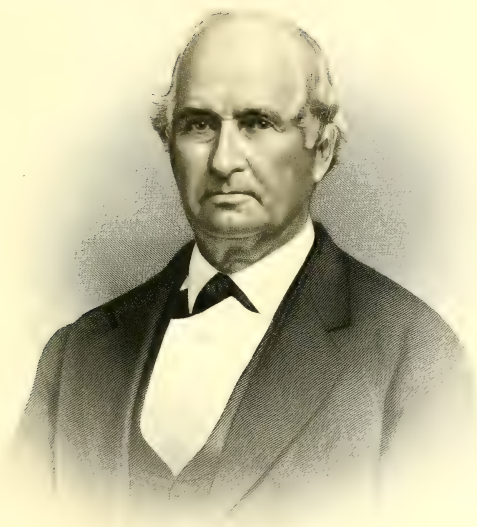
ABRAM STICKNEY FRENCH, son of Abram and Elizabeth Kidder French, was born in Boston, March 5, 1809. While yet a young man he made two voyages to the West Indies as a "cabin boy," but maritime life being distasteful to him, he relinquished it and entered the New Ipswich Academy, where he acquired an excellent education, which well fitted him for his subsequent successful business career. His father was a Boston merchant, and for a time Mr. French adopted the business of his father, but, being satisfied that more rapid progress lay in the line of manufacturing, he gave up his mercantile interests, and in 1830 engaged in the morocco tanning business at West Townsend. In 1833 he built a factory on a brook running northeasterly from Bayberry Hill, near its junction with the Squanicook, and this establishment continued in successful operation until 1853. He then went to Lockport, N. Y., where he stocked a tannery, and carried on this business successfully until 1858, when he disposed of his interest and removed to Wells-ville, N. Y., where he erected an extensive tannery, and pursued that industry for several years with marked success.

In consequence of impaired health he disposed of this interest in 1864, and retired from business. In 1831 he united in marriage with Miss Lois P. Richardson, of Townsend, and their family consisted of the following: Mary Elizabeth, born October 26, 1832; died September 30, 1834; Mary Elizabeth, born March 30, 1834, died February 6, 1859; George Frederick, born September 1, 1836, died November 4, 1861; and Ann Maria, born August 2, 1838, died August 26, 1854; Abram Arthur, born March 1, 1844, and Martha Ellen, born November 4, 1846. Of this family only two survive, Abram A. French, of Tacoma, Wash., and Mrs. Charles S. Homer of New York. Mr. French died March 24, 1896, and Mrs. French January 25, 1896.

Although in no sense a politician, he was interested in the politics of the day. He was a member of the Republican party, and in 1861 and 1862 represented the twenty-seventh district of Massachusetts in the General Court.

Actively engaged in the management of a large business, he found time to indulge his taste in literature, and was fond of books, and an enthusiastic student of the political questions of the day, and few men in the city were better equipped in a knowledge of the history of the first fifty years of the republic.

He had a large acquaintance with the leading men of Massachusetts, and was highly esteemed by them as a man of marked intelligence, and worthy aims and pur-



Abram S. French



Saml. Johnson

poses. Early in life, while the spirit of Napoleon was still above the horizon, he was greatly captivated by the brilliant career of the Corsican, which led him to study the various campaigns of the great Napoleon, until there was hardly an incident of the career of this distinguished figure in history with which he was unfamiliar.

Mr. French manifested a lively interest in military matters, and was commander of the old military company in his town, and was noted for his enthusiasm and ability. It may be said in this connection that his oldest son died in the service of his country during the Rebellion. Mr. French's marked characteristics were his great courage, his quiet, simple habits, and his ability to decide promptly and correctly any questions presented to him. He was a man of marvellous courage, and where others might have yielded, he stood firm. He clung reverently to the old New England traditions, and was not allured by the glitter and tinsel of later days. His mind was well disciplined and evenly balanced, his judgment was practical in the highest degree, and his great executive ability was one of his marked characteristics. Quick to grasp a point, he seldom erred in action, and by a faculty of character he seemed always ready to meet any emergency that might arise. He was a business man of the highest integrity, rich in experience, faithful in all his relations, above fear and beyond reproach. Such were the qualities which placed Mr. French in the front rank of Massachusetts' honored and esteemed citizens.

SAMUEL JOHNSON, M.D.

DR. SAMUEL JOHNSON, the son of Joshua and Martha (Spofford) Johnson, and grandson of Col. Samuel Johnson, who served continuously in the War of the American Revolution, was born in North Andover, Mass., in the old family homestead, now owned and occupied by his daughter, Miss Catherine Johnson.

He was graduated at Harvard College with the class of 1814, having a part in the commencement exercises on August 31 of that year, in company with James Walker, William Hickling Prescott, Thomas Bulfinch, Pliny Merrick and others, candidates for the degree of Bachelor of Arts, while Edward Everett was on the same day a candidate for the degree of Master of Arts. After a course of study with Dr. Thomas Kittredge, of Andover, Dr. Johnson settled, in 1818, in Salem, Mass., where he continued in the active practice of his profession until he retired in 1860. During all of these years he unceasingly devoted himself to his work and became the leading physician, not only in Salem, but in the region around. Dr. Johnson was kindly in nature, firm in principle and sympathetic in his devotion to the patients under his charge, whom he always inspired with faith in his abilities. His name was a household word, and his commanding figure was for two generations familiar to every citizen of Salem.

Dr. Johnson married, June 7, 1821, Anna, the daughter of Joshua and Elizabeth (Crowninshield) Dodge, of Salem, who died October 22, 1849. By this marriage there were born seven children who lived to maturity. Samuel, Anna, Joshua, George, Elizabeth, Catherine and Francis Dodge. Samuel, the eldest, became distinguished as a writer and lecturer; he was for many years the minister of the Free Religious Society of Lynn, and was author of "Oriental Religions," India, China, Persia, the latter volume being published after his death, which occurred on February 19, 1882, at the age of fifty-nine years. Anna married Rev. Augustus Mellin Haskell, who died February 24, 1893, and she now resides at Roslindale, Mass.

Catherine, as stated, lives at the old home in North Andover, and the other children died unmarried. Dr. Johnson married a second time, June 1, 1857, Mrs. Lucy Pickering (Stone) Robinson, who survived him, her death occurring on May 9, 1893. Dr. Johnson died at Salem, Mass., on May 28, 1876, in the eighty-sixth year of his age.

JAMES HENRY WINCHELL.

H AVERHILL owes an imperishable debt to such men as James Henry Winchell, who with well-stored minds of practical knowledge gave large and comprehensive abilities, sterling integrity and wise and sagacious industry to the development of those manufacturing interests, which are the source of her wealth and prosperity. Justice to the men who have spent long lives in her service, demands that they be worthily mentioned in her history, and we give an outline of the business career of one of her most prominent and successful representatives, when we write of Mr. Winchell. He rose early by his own efforts to a leading business position, and through all the changing events of an active life preserved his integrity unimpeached. Without the advantages of inherited aid, he worked the problem of his fortune and lived to enjoy the fruition of a successful business career.

Mr. Winchell was born in Bangor, Me., May 18, 1838. Like many of New England's leading business men of to-day, much of his early life was spent on a New Hampshire farm, and, at the age of fifteen, he came to Haverhill, Mass., with no capital, save health, energy and an indomitable will. After laboring at various employments, he learned the trade of binding shoes, and in July, 1858, began his business career by embarking in a very small way in sole leather-cutting, being at this time but twenty years of age. Here the business energy and tact of Mr. Winchell was clearly manifested, and within five years from the founding of this initial business, he was employing about sixty hands. With that clear foresight which marked his subsequent business career, he saw that Haverhill was destined to become an important shoe-manufacturing centre.

Here he began life as a poor boy, and here he fought his way unaided to the prominence and prosperity which he enjoyed uninterruptedly up to the time of his death. The story of James Henry Winchell's life begins in poverty and obscurity, continues through many years of struggles and consequent triumphs, and ends in a career of remarkable success as a manufacturer of shoes, and the successful building up of one of the largest concerns in the country, and the possession of wealth and prosperity and troops of friends.

In 1863 Mr. Winchell took his brother into partnership, the style being J. H. & G. J. Winchell. This marked the beginning of Mr. Winchell's connection with the manufacture of shoes, as he soon after devoted his entire attention to that business, disposing of his sole leather interests to R. G. Ayer. The firm of J. H. & G. J. Winchell made, at that time, women's machine and pegged calf and buff boots, such as were manufactured in that day. They were located in the block 108-110 Merrimack street, and the building in the rear. Later Mr. Winchell removed to 11 Washington street, and after a few years changed to 45 Washington street, and again to the Bragg Block, all the time seeking larger quarters for the increasing business. At the time of Haverhill's great fire in 1881, he was occupying the Bullen Block on Washington street, and the buildings in the rear. During the process of rebuilding he occupied the Sanders Block. After his factory had been rebuilt, he returned and remained in the Bullen Building until his new factory on Locust street was completed.



W. W. Mitchell

At the end of seven years the junior partner of the firm retired, and Mr. Winchell continued to manufacture alone for an extended period. During this time the business had grown steadily, and the amount of goods produced and hands employed constantly increased. In 1887 Myron L. Whitcomb, Mr. Winchell's son-in-law, was admitted to an equal partnership. September 1, 1893, Howard L. Clark, who had been connected with the firm for some time in the capacity of salesman, was admitted to an interest in the business. This membership continued until Mr. Winchell's death, January 15, 1896.

In January, 1891, the firm removed to their new factory, 9-17 Locust street. This structure, which is one of the best built and largest shoe-manufacturing plants in the United States, contains eighty-four thousand square feet of floor space, and employs upwards of eight hundred hands. The volume of J. H. Winchell & Company's business has grown from an output of one hundred cases in 1858 to one hundred thousand cases in 1896, and to a sum which ran over a million and a half dollars during that year. Its founder, up to the time of his death, retained a firm grasp on the details and general supervision of the business and general affairs of the concern. An important addition to the Haverhill factory was the Island Park plant, which was established by Mr. Winchell in 1895, and which has since grown to large proportions. In 1892 Mr. Winchell purchased the Island Stock farm at Bradford, formerly belonging to the late H. H. Hale, and made great improvements at that point, erecting a shoe factory, with paper and box factories adjoining, which was the nucleus for a thriving village. Mr. Winchell began the improvements in July, 1894. He took great delight in supervising the laying-out and development of this new community, and had many plans in mind for still further enlarging and improving it. J. H. Winchell & Company have also a factory at Candia, N. H., which has been part of their business for a considerable number of years.

The name of Winchell was, and is to-day, a leading one in shoe-trade circles all over the United States. The output of the firm's business in this city during the past few years has been fully one-sixth of the entire shoe shipments sent from Haverhill. Mr. Winchell was always active in public affairs, outside of his own especial business interests. He had been director in several local banks, but never entered politics beyond one term of service in the Common Council. Only two days previous to his death, he was elected director of the Second National Bank of this city. His judgment on financial matters was remarkably correct, and his counsel in that direction was sought after by many of his fellow-citizens in and out of banking circles. He was prominent in Masonic circles, being a thirty-second degree Mason, and belonged to the Haverhill Commandery of Knights Templar, was a member of Mizpah Lodge of Odd Fellows, and a leading member of the Pentucket Club. Mr. Winchell was married thirty-five years ago to Miss Mary I. Allan, of Dexter, Maine, who died February 14, 1888. The only child is the wife of Myron L. Whitcomb of the firm. Mr. Winchell's life and business career stands as his best monument.

The memory of Mr. Winchell will be kept green in the hearts of many who learned to prize him for his unassumed worth, his sterling integrity and his liberality to all worthy public causes. He was more than an ordinary man. His brain was like his body, strong and full of force. His achievements were many and great, a few of them extraordinary. His business career will suggest the conspicuous qualities of his mind and temperament as the world saw them, and events caused them to develop. Without early education, he rose by the force of his own ability until he stood in the front rank of the business men of his adopted city.

JOHN CROWELL, M.D.

JOHN CROWELL was the son of John and Anne (Greenleaf) Crowell, and was born in Water street, Haverhill, September 28, 1823. His early education was chiefly under the direction of his maternal uncle Benjamin Greenleaf, the celebrated teacher and mathematician, under whom he was fitted for college. His health rendered him unable to pursue his studies for a time, but afterwards, although he did not enter college, he kept abreast with its curriculum.

He spent several years in teaching, becoming at the age of twenty-one, principal of the Haverhill School Street Grammar School, where he won marked reputation as an instructor. The work of teaching was resigned for the study of medicine under the direction of Dr. George Cogswell, of Bradford, who had a wide reputation as a practitioner of medicine and surgery. The study was continued under Professor James McClintock in Philadelphia, and afterwards in the Pennsylvania Hospital in the same city. In 1850 he was graduated with honor from the Philadelphia College of Medicine, and in 1851 began the practice of his profession in his native city.

Here he resided during the rest of his life, becoming known not only as a physician, but in connection with numerous important positions of trust. For many years he was a member of the school board, generally as its chairman. In 1878 he was elected one of the trustees of the Haverhill Public Library. In 1880 he was made chairman of the recently established board of health. On the establishment of the city hospital, in 1882, he was appointed one of the trustees, and on the organization of the board was chosen secretary. In 1883 he became a trustee of Bradford Academy, and was elected secretary of the board, and was for years lecturer upon architecture and literature at that institution. In 1856 Dr. Crowell was made a fellow of the Massachusetts Medical Society, and in 1881 and 1882 was president of the Essex North District Medical Society, which is a branch of the state society. In 1883 he was appointed one of the consulting board of physicians at Danvers Asylum by the trustees of that institution.

Besides the duties of his profession Dr. Crowell's literary labors were many and varied. Among the papers written for the Massachusetts Medical Society may be mentioned the following: Diseases of the Rectum, 1856; Relations of Membranous Croup to Diphtheria; Asiatic Cholera, read before the New Hampshire Medical Society, 1873; Anomalies in Pregnancy, Massachusetts Society, 1878; the Human Brain and some of Its Phenomena, Essex Medical Society, 1876. In June, 1884, in response to an invitation to give the annual address before the Massachusetts Medical Society, he delivered an eloquent oration, which has since been published, entitled "The Physician a Popular Educator."

In 1876, at the invitation of the city government, he delivered the address on the occasion of the centennial anniversary of our national independence. He was also chosen to deliver the poem at the two hundred and fiftieth anniversary of the settlement of Haverhill, and this poem, previously prepared, was read on that occasion the month after his death.

Dr. Crowell was one of the original members of the Haverhill Monday Evening Club, established in 1860, and took a lively interest in the social and literary life of that organization.

Among the numerous lectures, essays, reviews, and other papers written by him for clubs, literary societies and periodicals may be mentioned the following; John



Harvey



James Braden

Ruskin, Michael Angelo, Architecture, Sources of the English Language, Thomas à Becket, Charles Lamb, English Literature in the Eighteenth Century, Modern Homes, etc. He also wrote much for the local press, chiefly as a critic in art and literature.

Dr. Crowell was twice married: first, June 7, 1854, to Sarah Bradley Johnson, daughter of Samuel Johnson. They had one child, William Henry, born October 6, 1857; died September 21, 1859. Dr. Crowell's first wife died October 21, 1859. October 31, 1861, he married Caroline Corliss, daughter of Ephraim Corliss, Haverhill, who still survives him.

Dr. Crowell became connected with the Center Congregational Church in 1849, and filled many responsible positions in the various departments of its work, as superintendent of the Sunday-school, as clerk of the church, and as deacon for the twenty years preceding his death. He organized and for many years taught a Sunday-school class of young men, the numbers of which ranged from forty or fifty to seventy, and make up a total that can be reckoned only by the hundreds.

During the closing months of his life Dr. Crowell was an intense sufferer from a disease that ended in his death April 28, 1890, at the age of sixty-six years, seven months. Dr. Crowell's wearying and distressing illness was borne with great fortitude, and though he had hoped to live a little longer to carry out certain plans to a complete fulfillment, yet the end was peace and unquestioning submission to the decree which called him hence. Many and tender expressions of affection and respect were called forth by his death. The venerable Dr. George Cogswell, his early instructor, said of him:

"As a practitioner he was judicious, careful and attentive. . . . He walked the streets of Haverhill unchallenged as a poet, scholar and Christian gentleman. The poet Whittier in a letter written at the time of his death says: 'In the long annals of his and my native city there is no memorial of a truer and worthier man. He was the "beloved physician" whose presence in the sick chamber was a benediction, and by the public at large he was loved and honored as a genial, benevolent and active citizen, interested in every good cause and work. He had all the good and beautiful characteristics of a Christian gentleman. He made me richer by his friendship. In looking forward to the near close of a prolonged life I have been pleased to think of him as one who might speak kindly and tenderly of me in the club which honors me by its name, and of which he was the founder and president. It seems strange that he should pass before me into the great mystery towards which we are all moving, where the mercy of the All-Merciful is our only ground of hope and confidence. I greatly regret that I cannot be present at the funeral and unite with you in the last office which affection can render to one who has done so much for others; but, if not in person, in spirit I shall find a place in the great circle of mourning friends which will surround his grave.'"

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JAMES BRADEN.

MR. BRADEN was born in Middletown, Conn., December 18, 1818. After the death of his father, his mother removed to Salem, Mass., when he was ten years of age, and there he attended the public schools. After leaving school, he went two voyages to sea in the brig "Richard," and was then apprenticed to James Stimpson, tanner and currier. After learning his trade, he began to manufacture leather on his own account, and carried on the business successfully until his death. He always occupied a high position in the trade, and was one of those who gave to Salem the distinction it had won in the manufacture of leather. His business habits and methods, combined with prudence, sagacity and impregnable integrity,

secured for him the confidence and respect of his fellow-citizens, which he retained until his death. He had no taste for political honors, and neither sought nor would accept public office. He was many years a director of the Merchants' National Bank, of Salem, and the cares and responsibilities attaching to that position were all he was willing to assume outside of his personal affairs.

Mr. Braden was the successor of a long line of leather manufacturers, which extends back to the earliest days of the Massachusetts Colony. The first recorded tanner in Salem was Philemon Dickinson. In 1768, there were four tanneries there, and in 1860 thirty-four, the value of whose manufacture was \$869,047.70, produced by the employment of five hundred and fifty hands. In later years there have been about fifty establishments, employing about a thousand hands, and yielding an annual product valued at \$4,209,004.

Mr. Braden married December 25, 1842, Margaret I. Ashley, and had three children, Sarah P., the wife of Albert P. Goodhue; James, who died in 1860, and Jennie, who died in 1861. Mr. Braden died February 25, 1895.

WILLIAM GRAY BROWN.

JACOB BROWN, of Ossipee, N. H., married Frances R. Quarles, of Ossipee, and removed to Ipswich, Mass. He had two daughters and four sons, one of the latter of whom was Jacob Franklin Brown, who graduated at the Bridgewater State Normal School, and was for many years a successful teacher in Salem, Mass., where he died April 26, 1877. William Gray Brown, the younger son, was born in Ipswich January 27, 1830, and was educated in the public schools of his native town. Possessing a clear head and sound judgment, he early developed a genius for business, and in company with Daniel L. Worcester entered into the grocery business in Ipswich. His experience in this business further developed his ability, and the bounds of his activities soon proved too narrow for his taste and ambition. After the death of his father in 1863, he entered into the wood, coal and ice business in Ipswich, in which his father had been engaged, and carried it on with increasing magnitude and success until his death. In connection with this business he became largely interested in real estate, and he found recreation as well as profit in the purchase of lands and erecting on them houses for sale or rent. In this way he built up parts of Ipswich and was largely influential in adding to the growth and beauty of the town. But his interests were by no means confined to the business in which he was engaged. Possessing a warm heart and generous impulses, the welfare of the industrious poor he ever sought to promote, and many a laboring man has the kindest memory of the employer who was always ready to furnish him with work and thus enable him to support his family. He was a friend of every man, and every man was his friend. While adding to his store, which at last became full and overflowing, his pleasure in adding to it was no greater than that of contributing from it to the comfort and happiness of those about him.

Mr. Brown married, January 2, 1853, Elizabeth M., daughter of Ebenezer and Elizabeth Cogswell, and died January 2, 1896. For some years before his death he suffered from feeble health, but to his family and friends his end at the time was unexpected. His widow, who had been not only his partner in the joys of home, but a wise and prudent counsellor in his various enterprises, was the recipient of the general and unbounded sympathy of all who had ever been brought in contact with



Wm. B. Brown



Chas Harrington.

him either in business or social life. Unassuming in his tastes, without ambition for public honors, he led a peaceful contented life, beloved by all.

His funeral took place on Sunday, the 5th of January, at the South Church in Ipswich, on which occasion the church was filled to its fullest capacity. More than four hundred persons, including all classes, after the services walked reverentially by the casket which contained the remains of the "honest citizen, the keen business man, the poor man's friend." Rev. T. F. Waters officiated, assisted by a quartette connected with the church. The pall-bearers were Walter E. Lord, Lewis E. Willcomb, Edwin H. Damon, John A. Blake and E. L. Akerman, of Ipswich, and Captain Randall, of Vineyard Haven; and the burial was in the family tomb of the "Old Yard" of Ipswich.

CHARLES HARRINGTON.

THE great and varied influence that is exerted by a man of high aims in business, and in his relations to the community in which he lives, was well exemplified in the career of Charles Harrington, who was in every respect a typical representative of the New England character—persevering and enterprising, courageous and conservative, of scrupulous and exact habits of mind—a man of the highest intellectual and moral integrity.

He was born in Salem September 28, 1815, and learned his trade of Leonard B. Harrington. He began business on his own account, and after conducting it for several years, in 1845 he entered into a partnership with Leonard B. Harrington, which continued until 1865, when he became associated with Richard Harrington under the firm-name of Charles Harrington & Co., which business was continued until 1893, when it was dissolved by mutual consent. This firm did a large business, and had a store in the leather district on South street, Boston. In July, 1845, he united in marriage with Mary Knight.

Although his business interests were large and exacting, he manifested a lively interest in matters tending to advance the interests of Salem, and although in no sense a man who desired public office, he was a member of the Common Council in 1858 and 1859, and was elected to the Board of Aldermen in 1870. He was also a member of the Board of Water Commissioners for three years following 1872. He was president of the Mercantile National Bank for many years, and also treasurer of the Mechanic Hall Corporation. He was deeply interested in the mysteries of Free Masonry, and was a member of Essex Lodge, F. and A. M., and was also a charter member of Fraternity Lodge of Odd Fellows.

Although deeply interested in the business and social life of the community, he never forgot the duty he owed to the Christian Church, and was a member of the Universalist Society, and contributed liberally to its support. He possessed an affable disposition, a judgment well balanced and almost uniformly correct in its results, and an integrity of character that was never touched by whisper or reflection. He was an excellent financier, a man of quick perceptions and great executive ability. He was liberal minded, broad in his views, and had the confidence and esteem of the people in a remarkable degree.

WILLIAM O. BROWN.

BENJAMIN BROWN, the great-grandfather of William O. Brown, was born in 1728. His son, William Brown, was born in 1758. Benjamin Brown, son of William, was born in Reading, Mass., in 1787, and became a prominent citizen of Royalston, Mass., to which place his father removed from Reading. He was not only active in political and business life, but was captain of the Royalston Grenadiers and afterwards colonel of the Fifth Regiment of the Massachusetts militia in the War of 1812. He also represented Royalston two years in the general court. He married first, in 1814, Betsey, daughter of Nathan Reed, of Rutland, Mass., and in 1834, Catharine Townsend, and was the father of William O. Brown, of whom this sketch is written.

William O. Brown, son of Benjamin and Betsey (Reed) Brown, was born in Royalston, March 30, 1815, and was educated in the public schools of that town. In early life he was engaged in mechanical pursuits, and in 1854 removed to Fitchburg, Mass., where he became associated with W. A. Crehore and Edward A. Brown as the senior member of the grocery firm of Brown, Crehore & Co. In 1857, he formed a partnership with H. A. Blood, a native of Townsend, and until 1861 carried on the flour and grain business in Fitchburg. Mr. Blood was at a later day mayor of Fitchburg, and still later became prominent in railroad enterprises. In 1861, Mr. Brown abandoned business and was appointed quartermaster of the Twenty-Fifth Regiment of Massachusetts Volunteers commanded by Colonel Edwin Upton. He served from September 20, 1861, until October 20, 1864, having occupied, after the capture of Newbern, N. C., the position of post commissary at that point. In that important and responsible position his duties were performed in a manner to win the commendation of all associated with him. While acting as commissary, he narrowly escaped death from an attack of yellow fever which, however, left its mark upon his previously vigorous constitution. After his discharge from military service he was appointed to a responsible position in connection with the Hoosac tunnel, then building under the management of the state of Massachusetts, which position he held until contracts were entered into for its completion in 1869.

The traits of character possessed by Mr. Brown were such as commended him to his fellow-citizens. His faithful industry, methodical habits, sound judgment and impregnable integrity were qualities which they could not fail to recognize and appreciate. From 1857 to 1861, when he entered military service, he was a member of the Board of Selectmen of Fitchburg, and again in 1865, 1866 and 1870. In 1868 he was chosen a member of the Board of County Commissioners for Worcester county, and in 1877 succeeded J. Warren Bigelow, of Rutland, as chairman of the board. Such men as General Crawford, of Oakham; Velorous Taft, of Upton; Henry G. Taft, of Uxbridge; J. Warren Bigelow, of Rutland; Henry Rice, of Barre; Bonum Nye, of North Brookfield; George S. Duell, of Brookfield, and Asaph Wood, of Gardner, had either preceded him or been his associates on the board, but he was excelled by neither of these as a faithful servant of the county. He held office twenty-one years, until the close of the year 1889, when ill health compelled him to decline further service.

In 1888 Mr. Brown represented Ward three in the Board of Aldermen of Fitchburg, and in various other places was called upon to display his usefulness in behalf of the community in which he had cast his lot. He was one of the incorporators of



Wm C. Brown.



the Wachusett National Bank of Fitchburg, and one of its directors from the time of its organization, June 1, 1875, till his death, and its vice president from January 9, 1877. He was also a director of the Fitchburg Mutual Fire Insurance Company from 1865 to 1868, and from 1870 until his death, and for several years treasurer of the Walter Heywood Chair Manufacturing Company.

Mr. Brown was twice married. He married, first, Hannah G. Heywood, of Royalston, who died in October, 1868, and had two sons, who died in their youth. He married, second, October 4, 1870, Rosa, daughter of Walter Heywood, of Fitchburg, who is still living in that city. He was one of eight children, one of whom, Moses R. Brown, died in Fitchburg January 27, 1864, and one died quite young. The other children, all of whom are living, are Isabella, widow of J. F. Brooks, of Barre; Eliza M., and Benjamin H. Brown, both of whom have their home on the old family estate in Royalston; Edward A. Brown, of Worcester, treasurer of Worcester county; and Lizzie R., who is a teacher in Chicago.

Mr. Brown died in Fitchburg, January 29, 1890. At a meeting of the Fitchburg Mutual Fire Insurance Company, held March 29, 1890, the following memorial was unanimously adopted:

"In the death of William O. Brown we are again bereaved by the loss of one of the most able, useful and valued members of this board. For twenty-one years he faithfully performed the duties of a director, most of the time acting upon the committee of investment, greatly to the safety and prosperity of this institution.

"In the walks of public life he filled many positions of trust and responsibility, both with honor to himself and those whom he served. In his loyalty to his country as an officer of the 25th Massachusetts Regiment he gave the best service of his mature manhood. He also served the Public as County Commissioner for more than twenty years with great fidelity.

"In the City Government his natural conversation made his opinions universally regarded as wise and safe. But it was in his own home, at his own fireside, and among his cherished friends, that his eminent social faculties shone in their beauty and strength. With an unsullied integrity he pursued his life-work until the silent messenger overtook him, and he was gone. To his family we tender our profound sympathy and pray they may be comforted in their time of affliction."

The Board of Directors of the Wachusett National Bank adopted also the following resolutions:

"WHEREAS, Death having removed from among us our Vice-president and Associate Director, William O. Brown,

"Resolved, That by his decease this Bank incurs the loss of one who from its organization has been a Director, and has ever been deeply interested in its welfare, and by long and faithful service, good judgment and wise counsel has rendered valuable assistance in the management of its affairs.

"Resolved, That this board not only deplore his loss as a business associate, but as a warm personal friend; his strict integrity, courteous bearing and most genial social qualities, having caused each of us to regard and esteem him as such.

"Resolved, That this city and community have met with a severe loss of one who has filled many positions of public trust with ability, fidelity and integrity, leaving an honorable name at the close of a long and useful life.

"Resolved, That we tender our sincere sympathy to the family of the deceased, especially to her who mourns the loss of a kind husband and genial companion."

JOSEPH F. HITCHCOCK.

ON the 16th of January, 1741-42, portions of the towns of Brookfield and Brimfield, Mass., and of the plantation of Kingsfield, which was incorporated in 1752 as the town of Palmer, Mass., were set off and incorporated as the town of Western. The town of Weston, in Middlesex county, Mass., had been incorporated in 1712, and the confusion arising from the similarity of the names of the two towns led to the change in 1834 of the name of Western to Warren. In the town of Western Joseph F. Hitchcock, the subject of this sketch, was born July 27, 1815. His father, Daniel Hitchcock, was a native of Palmer, Mass., and was born in that town in 1787. He became a prominent man in Western, following the occupation of a merchant, and was a tireless worker for the advancement of the town in educational as well as more material forms of progress.

Joseph F. Hitchcock was educated in the district schools of his native town, and in Leicester and Westfield academies. After leaving school, his course in life was diverted from professional pursuits by the delicate state of his health, and he at once entered as clerk the store of his father. Though engaged many years in business, his tastes led him into a semi-professional career, and, as a practitioner in the Court of Probate, he enjoyed a clientage of considerable importance. His traits of character specially adapted him to this occupation. Honest, prompt, exact and methodical, the settlement of estates was placed with unhesitating confidence in his hands. His success in this *quasi* legal field, which he thus entered, gradually led to the performance of other professional duties, and the registries of deeds and probate in his county show that in the conveyances of real estate and in the making of wills he was steadily employed. With a legal mind, he educated himself in many of the mysteries of the law, and the advice, which he was constantly called on to give, was always found to be sound, and was almost always followed with implicit faith in his wisdom and judgment.

In the occupation, which he had adopted, he steadily enlarged the circle of those who confided in him, and as a result he occupied many positions of honor and trust in public life. He inherited an attachment to the men and principles of the Whig party, and when that party came into power in 1841, he was appointed by President Harrison the postmaster of Warren, the new name of his native town. He held that office until the change of the administration in 1845, and continued his affiliation with the Whigs until the formation of the Republican party, of which he was one of the founders in 1855. In 1857 he was a Republican member of the State Senate from the first Worcester district, and in 1861 was again made postmaster by President Lincoln. During the various administrations of Lincoln, Johnson, Grant and Hayes he continued in office until his death, December 20, 1880. He was a member of the Executive Council in 1865, the last year of the administration of Governor Andrew, and 1866, the first year of that of Governor Bullock.

The various members of the council, associated with Governor Andrew, formed the "Andrew Councillor Association," of which Mr. Hitchcock was a prominent member. At the fourteenth annual reunion of the association, held at the Tremont House, in Boston, January 6, 1881, Hon. Hartley Williams, of Worcester, delivered an address commemorative of the life and services of their late associate.

After a review of his early life, he said :

"With Mr. Hitchcock the performance of every public duty was marked by an untiring industry, strict integrity and scrupulous exactness. He allowed no consideration of private con-



J. F. Winchell



Isaac F. Worthington

venience or personal ease to interfere with the administration of public trusts committed to his care. His services were frequently sought in the settlement of estates and in the adjustment of complicated questions between contending parties, because of his unquestioned integrity and sound judgment. And his clear sense of justice and strict impartiality gave weight to his decisions. His wise counsels contributed much to prevent expensive and vexatious litigation, and to promote good order and good fellowship in the community within reach of his influence. He was prominent in all moral reforms, public-spirited and liberal in the support of every worthy cause. He was greatly beloved by his neighbors and the people of his town, and he so bore himself before them in the daily walks of life as to command their implicit confidence and respect. His demeanor towards all, so singularly kind and considerate, his pleasing social qualities, and his generous sympathies made him always and everywhere a welcome guest."

The public spirit of Mr. Hitchcock deserves a more emphatic reference than that contained in the remarks of Mr. Williams. The Quaboag Seminary, the public common in Warren, the Public Library, of which he was a trustee; the Congregational Church, of which he was for many years clerk and treasurer; and the system of public lectures which the people of Warren long enjoyed, owed him a debt of gratitude which was universally acknowledged and appreciated. His portrait hangs in the rooms of the Public Library, and a Memorial Granite Drinking Fountain, erected by his widow, stands on the common or park, which he designed and laid out.

Mr. Hitchcock married, 12th of September, 1837, Mary, daughter of Oliver and Betsey Bliss, of Warren, who died in 1848, having been the mother of a son, who died at seven years of age, and a daughter, who died in infancy. He married, a second time, 19th of June, 1850, Mary, daughter of Dr. Daniel and Elizabeth (Emerson) Green, of Auburn, Mass., and their only child, Daniel Green Hitchcock, is now living in Warren, and is editor and proprietor of *The Warren Herald*.

ISAAC FRANKLIN WOODBURY.

ISRAEL WOODBURY was a soldier in the Revolution and lived in Salem, N. H. His grandson, Isaac, was born in Salem, and married Caroline W. Parker. Isaac Franklin Woodbury, the subject of this sketch, the son of Isaac and Caroline W. (Parker) Woodbury, was born in Salem, N. H., October 31, 1849, and was educated in the public schools of that town. After leaving school he went to Boston, and became an apprentice of the building firm of Standish & Woodbury, of which his uncle, Charles Woodbury, was a member. The business, in which he thus became engaged, was a congenial one, and he devoted himself faithfully to his masters' interests. After serving his apprenticeship he was employed by the firm as journeyman two years, and afterwards two years as their foreman. He was a young man of mature judgment, and knew, what many young men fail to learn, that persistent application and faithful service were the surest means of success in life.

At the age of twenty-five, on the 6th of May, 1875, Mr. Woodbury started in business on his own account, and on June 1, of the same year, formed a partnership with George E. Leighton, a native of Maine, to engage in the business of building contractors, under the firm-name of Woodbury & Leighton, with headquarters in Boston. The firm of Woodbury & Leighton soon acquired a high reputation for skillful and faithful work, and their name became well known, not only in Boston, but throughout the whole of New England.

The firm of Woodbury & Leighton is still pursuing a career of prosperity with shops in Malden street, Boston, and with four or five hundred hands in their employ. Among the public and private structures erected by them, the following list shows the extent and magnitude of their operations, and how much they have contributed to the architectural beauty of various municipalities. The amount of all their contracts since 1879 exceeds nine millions of dollars, and the list here given includes only those of more than ten thousand dollars:

1879	Church of the Advent, Boston.....	\$25,700	1887	Boylston Market Bldg., Boston....	57,364
"	Mrs. H. P. Weeks, 4 houses, Linden Park, Boston.....		"	Fall River Bank, Fall River.....	38,207
"	Ellen M. Baker.....	15,900	"	Elliot Church, Newton.....	117,341
"	St. Stephens' Church, Lynn.....	29,300	1882	Hasty Pudding Club, Cambridge	23,650
1880	St. Stephens' Church, Lynn.....	41,575	"	Three Houses, Marlboro St., Boston	45,000
"	Eye and Ear Infirmary, Boston....	13,000	"	E. F. Woodbury house, Allston....	17,345
"	Mill job at Ipswich.....	29,000	1888	Brigham Estate, Tuft St., Boston	47,500
1881	Harvard Medical School, Boston....	139,527	"	Sims Bldg., Lincoln St., Boston....	41,300
"	Whitney Lewis, house, Boston.....	10,571	"	Vestry of St. Mary Church, Dorchester	17,685
"	Dr. F. H. Roach, house, Commonwealth Ave., Boston.....	18,642	"	Boston Antheneum Alteration, Boston	31,000
"	Hotel Aldine, Columbus Ave., Boston	26,573	"	Boston Public Library, 1st contract	345,000
1882	Amherst College Library.....	39,751	1889	Boston Real Estate Trust, Kingston St., Boston	296,700
"	Mrs. Susan H. Page, house, Norman St., Boston.....	12,015	"	Ludlow Mfg. Co., Essex St., Boston	57,757
"	G. O. Shattuck, house, Beacon St., Boston	11,500	"	Old Cambridge Baptist Church, Repairs, Cambridge.....	24,459
"	Kenilworth St. School-house, Boston	38,000	"	Alteration Allen Bldg, Chauncy St., Boston	28,127
1883	Wm. Saltenstall, house, Boston....	11,280	"	Boston Public Library 2nd Contract	685,820
"	Geo. R. Minot, house, Boston.....	23,347	"	J. French store Lincoln St., Boston	35,211
"	Mrs. Nathnl Thayer, house, Commonwealth Ave., Boston.....	16,539	"	Laura E. Sturtevant store, Lincoln St., Boston	35,211
"	Hollis St. Church, Newbury St., Boston	52,629	"	Wm. Minot store, cor. High and Broad Sts, Boston.....	81,349
"	N. E. Fire Brick Co., Federal St., Boston	32,162	"	Beef Packing warehouse, North St., Boston	29,255
1884	Parker St., School-house, Boston	20,000	1890	Pintsch Compressing Co., South St., Boston	13,762
"	Groton School, Groton, Mass.....	41,780	"	Edinboro St. store, Boston.....	38,000
"	Pocasset National Bank, Fall River.....	24,650	"	Charles and Beacon St., Boston....	108,000
"	American Unitarian Assn., Beacon St., Boston	19,955	"	Jordan Bldg, Kingston St., Boston	232,000
"	Bullard Bldg., Purchase St., Boston	37,545	"	Hotel Huntington, Huntington Ave., Boston.....	21,000
1885	Shawmut Ave. Baptist Church, Boston	10,225	"	Groton School, Groton, Mass.....	155,600
"	Huntington Ave. School-house, Boston	25,622	"	Allston Congregational Church.....	30,550
"	Groton Schools, 2d contract, Groton	18,410	"	Pierce School, Dorchester	101,911
"	Northampton St. Glass Works, Boston	16,454	"	Pope Mfg. Co., Columbus Av., Boston	126,000
"	Farlow Bldg., Lincoln St., Boston	51,000	1891	Farlow Bldg., State St., Boston....	154,500
1886	Mary O. Adams, house, Gloucester St., Boston	19,500	"	John H. Pray Bldg., Washington St., Boston	182,500
1886	Day Cordage Co., factory, Cambridge.....	19,000	"	Wm. Minot, house Comwth. Av., Boston	45,500
"	St. Paul's School, chapel, Concord, N. H.....	73,937	"	Bowdoin Sq. Theatre, Boston.....	151,500
"	Dedham Historical Society, Dedham	11,095	"	New Riding Club, S. End, Boston....	66,000
1887	Howard Sargent, Trustee Bldg., Winter St., Boston	33,000	"	Walker Bldg., Boylston St., Boston	241,500
"	Plymouth Savings Bank, Plymouth	41,000	1892	House on Wyoming St., Roxbury, Boston	21,000
"	Athletic Club House, foundation, Boston.....	11,000	"	Three houses, Forest Hills, Lynn.....	16,357
			"	Thomson-Houston Electric Co., Boston	157,500
			"	Carter Bldg., Water St., Boston....	275,000
			"	State House Addition, Boston.....	101,200
			"	St. Luke's Hospital foundation, N. Y. City.....	25,000
			1893	Auchmuty Bldg., Kingston St., Boston	154,000

1893	Pilgrims Cong. Church, Dorchester	27,000	1895	Codman Bldg., Portland St., Boston	34,500
"	General Electric Co. foundations, Lynn	10,000	"	Bldg. cor. Winter and Tremont Sts., Boston	100,000
"	Windham Deposit Bank, Brockton	27,000	"	Bunker Hill Breweries, Charlestown	55,000
"	R. Marston Restaurant, Brattle St., Boston	50,000	"	Strafford Banks, Dover, N. H.	50,000
"	Jefferson Bldg., Washington St., Boston	141,600	"	Jobbing Account	16,000
"	Codman Bldg., Tifts St., Boston	47,200	"	North and Cross Sts. Codman Bldg., Boston	34,000
1893	Bowdoin College, Brunswick, Me.	131,000	"	Demmon Bldg., South St., Boston	47,400
"	Slone House, Lenox, Mass.	172,500	"	Cambridge, Dunster St. Bldg.	133,000
1894	Repairs 72-74 Pearl St., Boston	14,300	"	Steinert Hall, Boylston St., Boston	200,000
"	R. H. White Bldg., Washington St., Boston	91,000	"	Warren Chambers, Boylston St.	255,000
"	Day Cordage Co., Allston	10,000	"	Car shops, S. Braintree	70,000
"	Tower to St. Paul School Chapel, Concord, N. H.	25,672	1896	Tarbell Bldg., Travers St., Boston	83,000
"	School House, Lee, Mass.	20,800	"	Pavilion Bldg., Tremont St., Boston	800,000
"	Storage Warehouse, Cambridge	110,916	"	Subway Foundations, Tremont St., Boston	10,444
"	33 N. Market St. Bldg., Boston	17,900	"	Goodyear Shoe Machinery Co. Bldg., Boston	138,500
1895	Repairs 156 Tremont St., Boston	20,700			

It will be noticed that in the above list the Boston Public Library Building in Copley Square is included, probably the highest example of architectural art in America. Such a building is only possible in a community containing among its citizens in the control of affairs those of refined taste who do not hesitate to reject the glaring ornaments which attract uncultivated minds, and who insist on the adoption of chaste models, harmonious in proportion and detail, and restful and composing to the eye. It exhibits none of the fads and freaks of caprice which, with a change of fashion, become either insipid or hideous, but is designed and built in accordance with a standard of beauty which, like a piece of old silver or a colonial house, survives the short-lived fancies of changing art, and will be always and permanently beautiful. Too much cannot be said in commendation of either its architects, or the members of the board of trustees who accepted his design, and had the heroism to carry it out in spite of the clamorous criticisms of uncultivated men. The two contracts made with Woodbury & Leighton involved the sum of one million, thirty thousand, eight hundred and twenty dollars. For the construction of the walls of the library a pink granite from quarries in Milford, Mass., was selected. At the time of securing the first contract Woodbury & Leighton owned an interest in the property of the Milford Pink Granite Company, of which Mr. Woodbury was president, and at a later date became the owners of the entire quarry. The color of the stone is adapted peculiarly to the chaste architecture of the building; and its mellow hue adds to the composing effect of the whole structure. It received a diploma at the exhibition in 1890 of the Mechanics' Charitable Association, and is receiving warm commendations from both architects and builders. The company employ more than three hundred men at the present time.

Mr. Woodbury has been a member of the Master Builders' Association since its inception, and was one of nine to start the association, leaving the old Mechanics' Exchange, and of the Mechanics' Charitable Association, and feels a deep interest in their administration and welfare. He married, June 1, 1873, Emma F., daughter of Washington and Dolly (Jones) Woodbury, of Salem, N. H., and has his home in Allston, a district of Boston, in which place he is a director of the Allston Co-operative Bank. He is also a member of the Congregational Church in Allston, and for four years was one of its deacons. His political associations are with the Republican party, believing, as he does, that its principles and measures are calculated to promote the commercial, industrial and moral interests of our country.

GEORGE WARREN WEYMOUTH.

GEORGE WARREN WEYMOUTH, son of Warren and Charity Weymouth, was born in West Amesbury, now Merrimack, Mass., August 25, 1850, and was educated in the public schools of that town, graduating from the High School. At the age of twenty-one years he engaged in the carriage manufacture in his native town, a business in which the town of Amesbury had been long distinguished. In 1882 he removed to Fitchburg, Mass., and established a carriage repository, which he sold in 1895. In 1886, at the time of the establishment of the Simonds Rolling Machine Company, he became a stockholder, and in 1890 its general manager, and still continues to act in that capacity. In 1897 he was elected vice-president of the company. Mr. Geo. F. Simonds became impressed with the necessity of having the highest efficiency of ball-bearings in the manufacture of bicycles, and wheels of various descriptions, whose velocity, depending largely on the accuracy with which the spheres used were produced, and also with the importance in warfare of having projectiles of great penetrative power, combined with a reduction in their cost. After diligent study and prolonged experiments, he invented the rolling-machine. The machines are used by the company in the manufacture of bicycle balls, pedal-pins, crank axles, pins for various car brakes, projectiles, and other specialties too numerous to mention. It is claimed that balls for bicycles and other anti-friction bearings, which vary a thousandth part of an inch from true spheres are discarded. Among their customers are included every bicycle manufacturer in the United States, and more than sixty railroad corporations, and their product is sent into every state and territory in the Union, to Europe, and to every province in Canada. The steel balls manufactured by the company, after they are ground and tempered, are passed through a testing machine, which detects the slightest variation, and such as fail to pass the test are rejected. The company employs about three hundred skilled workmen, and during the recent depression in manufacturing industry have found it difficult, without working two sets of hands, to supply orders. The great success which has characterized the career of this company has been largely due to the careful management, unfailing activity and executive ability of Mr. Weymouth.

It could hardly be expected that a man possessing the activity of mind and body, the executive ability and public spirit which characterized Mr. Weymouth, would fail to be intrusted in the promotion of all measures affecting the prosperity of the community in which he lives. The business circles of Fitchburg always find in him a broad, liberal, generous spirit, and few men are consulted with more eagerness in the inauguration of new enterprises. He is a director in the Fitchburg National Bank, and a director of the Fitchburg and Leominster street railway, of which he was one of the organizers, and was one of the founders of the Orswell Mills, of which he has been a director since its organization. He is also a trustee of the Fitchburg Savings Bank, a director in the Nockegee Mills, and a director in the Worcester County Society of the Ætna Life Insurance Company. As president of the Fitchburg Board of Trade, in which capacity he served two years, he had charge of the work in securing the first half mile of state road built in the commonwealth, and was largely instrumental in securing Fitchburg as the location of one of the new normal schools, in behalf of which the city gave the sum of \$25,000 for the purchase of land. In addition to the services in behalf of the public above enumerated, he was an active



G. W. Weymouth.



Edgar S. Moulton

promoter of the Fitchburg Athletic Club House in Fitchburg, which was built under the direction of a committee of which he was a member. He is now president of the club, which is the leading social organization of the city.

Politically he is a Republican, and an earnest advocate of the principles of that party. In 1886 he served in the Common Council of Fitchburg, having been unanimously chosen, and in 1896 was a representative to the General Court, and in the same year was elected a delegate to the Republican National Convention at St. Louis, and in November, 1896, was elected to Congress from the Fourth Massachusetts district, receiving the largest majority ever given a candidate from that district, carrying every city and town within its limits.

EDGAR S. MOULTON.

THE advancement of self-made men to high positions of honor and responsibility illustrates not only the opportunities under our republican institutions open to every man of intelligence, perseverance and integrity, but also that prevailing sentiment in the community which, disregarding a man's birth or material possessions, judges him by his character alone.

Edgar S. Moulton is descended from John Moulton, who was born in England in 1599, and, crossing to New England, was one of the original grantees of Hampton, N. H. The name seems to have been derived from the town of Molton, situated on the river Mole in Devonshire, and at various times in England and in this country has been spelled Molton, Multon, Muleton, Moletton, Moulson and Moulton. Brigadier-General Jeremiah Moulton, a descendant of John Moulton and an ancestor of Edgar S. Moulton, distinguished himself in the capture of Louisburg, and a silver tankard is in the possession of the family which, suitably inscribed, was presented to the general by George the Third in recognition of his service.

Mr. Moulton, who is now mayor of Fitchburg, Mass., is emphatically a self-made man. The son of William D. and Olive (Spingen) Moulton, he was born September 11, 1857, in Wells, Me., and was educated in the public schools of that town. Like many other New England boys, born and reared within sight of the ocean, he yearned for a sea life, and at seventeen years of age shipped before the mast, and for two years was engaged in the indulgence of the fancy of his youth. Again, like many New England boys before him, the experience of these two years proved sufficient to extinguish his ambition for a nautical career. He then returned to Wells, and learned the ship carpenter's trade. The gradual decline of New England navigation presented, however, a doubtful prospect of success in the profession which he had taken up, and he soon removed to Lynn, Mass., where he was engaged four years as a house carpenter and builder. At the age of twenty-four, in 1882, after spending some time in Boston occupied in his new business, he removed to Fitchburg, Mass., and on his own account has since that time been employed as a building contractor in that city. His successful career in his adopted city was soon assured. His natural ability, supplemented by shrewdness, perseverance and honest dealing, won for him the confidence of the business men of the town.

From the time of the incorporation of Fitchburg as a city in 1872 until the election of Mr. Moulton as mayor in 1893, twelve men had occupied the mayor's chair. Seven of these had been prominent business men, and five members of the legal profession, and all of them had previously held office in either the town or city government. Mr. Moulton is the first mayor of whom it can be said that he had

never held a public office of any kind. In the campaign resulting in his election in 1893 there were four candidates—Mayor Fosdick, then in office, and Henry A. Goodrich, both popular men. In a city like Fitchburg, with its rapid growth and its large and increasing expenditures for new streets, enlarged and extended sewers, more efficient police, and all those improvements and enterprises which attend the expansion of municipal machinery, it is apparent that no man wanting in good judgment, wise conservatism and the highest integrity can be chosen to rule over and manage its affairs. Though chosen mayor as the candidate of the Democratic party, he considered himself, after he had taken the oath of office, the servant of the city, and refused to be controlled by the edicts of party men. The consequence was that, at the end of his first term, the Democratic party nominated another candidate, and he was re-chosen as the Republican candidate. Nothing can better illustrate that independent spirit and moral courage which are prominent traits in his character.

Mr. Moulton is a director of the Fitchburg Cooperative Bank, and a member of its investment committee.

Mr. Moulton married October 16, 1893, Martha, daughter of James P. and Lucinda (Clough) Cobb of Fitchburg.

HARVEY DEMING HADLOCK.

MR. HADLOCK is descended in the seventh generation from Nathaniel Hadlock, who came from Wapping, England, in 1683, and settled in Charlestown, Mass. He is the son of Edwin and Mary Ann (Stanwood) Hadlock, and was born at Cranberry Isles, Me., October 7th, 1843. His early education was acquired at the schools of his native town, and at the age of thirteen he removed with his parents to Bucksport, Me., and there entered the East Maine Conference Seminary. Here he pursued an advanced course of classical study, at the same time enjoying also the benefits of private instructors. He also pursued a course of scientific study at the Maine State Seminary, now Bates College, and at Dartmouth. Having decided upon the legal profession as his life work, by the advice and with the influence of Governor Edward Kent, September 7, 1863, he entered the law office of Samuel F. Humphrey, of Bangor. He pursued his studies with diligence and attention, and on the 6th of January, 1865, at the age of twenty-one years, he was admitted to the bar in Bangor, and began the practice of his profession in Bucksport. Soon after his admission to the bar, he went to New Orleans, and there pursued the study of civil and maritime law under the instruction of the eminent lawyer, Christian Roselius, returning to Bucksport in 1866. Two years later he was admitted to practice in the courts of Nebraska, and in the autumn of 1868 he was admitted to the Suffolk bar, and opened an office in Boston. In 1869 he was admitted to the bar in New York, and there also was admitted to practice in the Federal courts. Returning to Boston in the autumn of 1869, he remained there in practice until 1871, when he returned to Bucksport, where he remained ten years, a part of the time actively engaged in promoting the construction of a railroad from Bangor to that town. He then removed to Portland. He remained in Portland until 1887, and during this period occupied a prominent position at the bar, engaged in cases involving important questions of railroad, corporation, patent and maritime law. In 1887, he returned to Boston, which place is now his home, and the centre of his field of action.

He has been interested in many important cases, chiefly among which may be mentioned the following criminal cases: The defense of A. B. Bartholomew, in



Harvey D. Hadlock



Joseph B. Ford

Boston in 1872, indicted for murder; the defense of Edwin M. Smith, of Ellsworth, Me., in 1877, charged with the murder of the Trim family at Bucksport. In maritime law may be mentioned Sawyer *vs.* Oakman, argued in New York in 1870; Gould *vs.* Staples, tried in 1881 in United States Circuit Court in Maine. Among the railroad cases in which he acted as counsel, were Spofford *vs.* Bucksport and Bangor Railroad Co.; Bucksport and Bangor Railroad Co. against the inhabitants of Brewer; Deasy, Administrator, *vs.* the Grand Trunk Railway Co. Two other famous cases are those of William Gray Brooks *vs.* Robert Codman, and the suit now pending, of Ruel Philbrook, Trustee for Christopher C. Campbell, Assignee in trust, *vs.* the Mayor, Aldermen and Commonalty of the City of New York, involving about twelve million dollars.

Mr. Hadlock has an office in New York as well as in Boston, and his practice extends beyond the range of those cities to the cities of other states than Massachusetts and New York, and to the jurisdiction of the United States Supreme Court.

He married, January 26, 1865, Alexine L. Goodell, of Searsport, Me., and has two children. Mr. Hadlock died in Boston, April 13, 1897, since this sketch was written.

JOSEPH BARLOW FELT OSGOOD.

JOHN OSGOOD, the first American ancestor of the subject of this sketch, was born in the parish of Wherwell, Hampshire, England, July 23, 1595. His pedigree can be distinctly traced far back in English history. He came to New England about 1637, and after short residences in Ipswich and Newbury, Mass., settled in Andover, Mass., about the year 1644, of which town he was one of the original proprietors, settlers and church organizers. He was one of the leading men of Andover, and the first person to represent that town in the General Court in 1651. He married in England about 1627 a wife Sarah, who died in Andover, April 8, 1667. He had six children, Sarah, John, Mary, and Elizabeth, born in England; Stephen, born in Ipswich or Newbury, and Hannah, born in Andover, and died in Andover October 24, 1651.

John Osgood, second, son of the above, born in England about 1630, came to New England with his father, and married November 15, 1653, Mary Clements. He had twelve children, all born in Andover; John, Mary, Timothy, Lydia, Peter, Samuel, Sarah, Mehitabel, Hannah, Sarah Agnes, Ebenezer and Clement, and died in Andover, August 31, 1693. He represented the town of Andover in the General Court in 1668-9, '89 and '90, was a church deacon, eight years a selectman and a very popular man.

John Osgood, third, son of the above, born in Andover September 13, 1654, married October 17, 1681, Hannah Ayres, of Haverhill. He had eleven children, John, Ebenezer, Nathaniel, Jeremiah, Jeremiah again, Daniel, William, Hannah, Benjamin, Samuel and Josiah, and died in Andover April 22, 1725. He was an active and useful man in church and town affairs.

Nathaniel Osgood, son of the above, born in Andover January 6, 1686 or '87, removed to Salem, Mass., where he married March 27, 1710, Hannah, daughter of John and Sarah (Pickering) Buttolph. He had nine children, Hannah, Hannah again, Nathaniel, John, Benjamin, Mary, Jeremiah, William and Sarah, and died in Salem in 1756.

Nathaniel Osgood, second, son of the above, born in Salem in 1714, married, Octo-

ber 6, 1745, Hannah Babbidge. He had two children, Christopher and Polly, and died in Salem June 6, 1799.

Christopher Osgood, son of the above, born in Salem October 26, 1748, married, April 21, 1772, Mary, daughter of Thomas and Susannah (Pike) Shepard, a descendant in the fifth generation from Rev. Thomas Shepard, of Cambridge. He had eleven children: Nathaniel, Polly, Nathaniel again, Christopher, Sukey, John, William, Henry, Betsey, Jeremiah and Abigail, and died in Salem March 4, 1828.

William Osgood, son of the above, born in Salem April 7, 1775, married Elizabeth, daughter of John and Elizabeth (Curtis) Felt, and sister of Joseph B. Felt, the historian. He had six children: Abigail Shaw, born April 26, 1818; William Henry, November 5, 1821; Joseph B. F., July 1, 1823; John Felt, December 18, 1825; Ellen Punchard, December 25, 1827; Mary Shepard, December 9, 1830; and Susan Elizabeth, June 1, 1832, and died in Salem April 2, 1834.

Joseph Barlow Felt Osgood, the subject of this sketch, and the son of William and Elizabeth Curtis (Felt) Osgood, was born, as above stated, in Salem July 1, 1823. He received his early instruction and his preparation for college in the private and public schools of Salem, including the English High and Latin schools, and entered Harvard in 1842, and graduated in 1846.

With an early predilection for the profession of law, he entered at once on its study with Jonathan Cogswell Perkins at Salem for two years, and a third year in Boston with Charles G. Loring, and was admitted to the Massachusetts Bar in Suffolk county by Judge Perkins, on motion of Caleb W. Loring, July 25, 1849. He naturally determined on his native town as a place of settlement, and there began his career and entered the lists for some of the rewards of professional life, more as a counsellor than as an advocate, and gradually acquired a large business in insolvency and probate courts and in settling of estates and management of many responsible trusts.

During the first year of his practice he was a member of the city council of Salem, and remained on the board until 1853. While occupying this position, he was chosen a representative to the General Court, and served in 1850, 1851, 1852. In 1859 and 1860 he sat at the Senate board of Massachusetts, and in that position he exhibited those traits of mind and temperament which not only made him a man of influence among his brethren, but disclosed also his eminent fitness for the positions which he was afterwards called on to fill. Deliberate in the arrangement of his thoughts, judicial and practical in his consideration of important questions, uninfluenced by prejudice and unswayed by partisan politicians, he soon secured a leading position in the Senate, and held it through his senatorial career.

In 1864 Mr. Osgood was chosen the twelfth mayor of Salem, and served through the year 1865. In July, 1874, he was appointed justice of the First District Court of Essex county, having within his jurisdiction the city of Salem and the towns of Beverly, Danvers, Hamilton, Middleton, Topsfield and Wenham. In January, 1889, he resumed his profession, not having, however, entirely relinquished it during his service on the bench, and since that time he has given to it his undivided thought and time, well illustrating the worthy traits of his ancestry in quiet and useful life.

Mr. Osgood married, November 23, 1853, Mary Jane Creamer, who died September 16, 1865, leaving two children—Alice M., born March 23, 1855, deceased July 16, 1881; and Elizabeth Curtis, born April 7, 1857, who married Henry A. Cook, February 13, 1884, and whose son, Osgood Cook, was born September 17, 1886.



Albert Clarke

ALBERT CLARKE.

ONE of the foremost champions of a protective tariff, of reciprocity, and of a sound national currency in the United States, is Colonel Albert Clarke, secretary of the Home Market Club of Boston. Though he enjoyed prominence before taking that position, he is probably most widely known and will be longest remembered for his work in that direction. In a recent speech he said: "When I pass away, if any one thinks it worth while to write an obituary, I hope he will mention that the one feature of my tariff work which has cost me the most battling and in which I take the greatest pride is my contention that protection should be extended impartially to every domestic industry that is exposed to foreign competition." This policy broadened the influence of his club from local to national, and it has since been the largest protective tariff association in the country. Colonel Clarke has engaged in many debates with the ablest champions of free trade, and one of the most notable events in his career was a bold address before the New England Free Trade League, by their invitation, on the 25th of March, 1896, in which he pointed out the failures of their economic policy. This speech, in pamphlet form, has been in demand ever since.*

Albert Clark, is the son of Jedediah and Mary (Woodbury) Clarke, and was born in Granville, Vermont, October 13th, 1840. His twin brother, Almon Clarke, is a physician of distinction in Milwaukee, Wisconsin, surgeon of the Northwestern Soldiers' Home, ex-president of the Wisconsin State Medical Association, and professor in a Medical College.

Colonel Clarke was educated in the public schools of Rochester, Vt., and at the West Randolph and Barre Academies, and has the honorary degree of Master of Arts from Dartmouth College. He studied law and was admitted to the bar in Montpelier. August 25th, 1862, he enlisted as private in Company I, Thirteenth Vermont Infantry, being promoted later to first sergeant of that company, and in a few months to first lieutenant of Company G in the same regiment. During the winter of 1862-3 he was engaged with his regiment in scouting against Moseby's guerillas in Fairfax county, Va., and in the early summer of 1863 joined the Army of the Potomac in the Pennsylvania campaign which culminated with the battle of Gettysburg. While on the march he received notice of promotion in another regiment and was ordered to report at Washington immediately, but as he was marching to meet the enemy he declined the opportunity, and was highly complimented by his commanding officers.

In the battle of Gettysburg the captain of his company was mortally wounded early in the second day's engagement, and Lieutenant Clarke took command and retained it to the close of the battle, though slightly wounded himself, taking part in two charges and capturing both artillery and prisoners. The Thirteenth was the right regiment of Stannard's brigade, and was the first in the Union army to advance and take part in the brilliant repulse of Pickett's charge. The part which that brigade took is recognized by all historians as one of the shining glories of the war. After the battle Captain Clarke went into the hospital, where he remained two or

* When asked for data for this sketch, Colonel Clarke replied that he was too busy to look up the facts, and besides had a shrinking from writing about himself; so the editor has gathered the particulars from newspaper sketches and biographies in several books, and while realizing that they are incomplete, hopes they are substantially correct.

three days; but, hearing that the army had marched, he hastened on and rejoined his command, though he came near dying on Catocin mountain from the hardships of the march. The regiment was mustered out in August, 1863, at the expiration of its term of enlistment.

Returning to civil life, he resumed the practice of law at Montpelier and at Rochester, and gave promise, according to Judge Barrett of the Supreme Court, of attaining high rank in his profession, but he also did some work for the *St. Albans Messenger*, which he subsequently purchased, and thus, contrary to his intention, was diverted from the law. He conducted that journal (daily and weekly) with marked ability and success until 1880, when he sold out to S. B. Pettengill, and, after spending a winter in Washington, removed to Massachusetts and engaged in journalism in Boston.

Perhaps the most noteworthy incident of his life in St. Albans was a controversy with the Vermont Central Railroad managers and their political allies, which lasted nearly ten years. After removing to Boston, he became a director in the Vermont and Canada Railroad Company, which owned a part of the Vermont Central system and was president of the company when the road was sold and consolidated with the Central. From 1864 to 1868 he was first assistant clerk of the Vermont House of Representatives. In 1874 he was a member of the Vermont Senate, but declined re election on account of the cares of business. Shortly afterwards he secured legislation for the erection of a state house of correction at Rutland, and was one of the commissioners for its construction. It was built within the appropriation, and has been an unqualified success. In 1888-9 he was secretary and executive officer of the Vermont Commission to erect monuments on the Gettysburg field, and this work was also done within the appropriations and to the satisfaction of all interested.

In 1884 Mr. Clarke was connected with the *Boston Daily Advertiser*, but when that journal refused to support James G. Blaine for the Presidency, and, having failed in his effort to secure control of the stock, he resigned his position, and for a time served as assistant to the president of the Boston and Lowell Railroad, but was soon induced to go to Rutland, Vt., and take charge of the *Daily and Weekly Herald* of that city for three years. In 1889, he returned to Boston, and was elected by a large majority, after a spirited contest, secretary and general manager of the Home Market Club, to which position he has since been annually re-elected by unanimous votes. Under his administration that club has wielded an influence and attained a distinction throughout the country. It is a national organization. The *Home Market Bulletin*, a monthly published under his direction, and numerous pamphlets, which the club has published and circulated to the number of nearly one hundred million copies, have exerted a great influence in determining the policy of the country in favor of protection and sound money.

Mr. Clarke was a captain in the Provisional Force raised for the protection of the Vermont frontier after the rebel raid on St. Albans, and was promoted to the rank of colonel on the staff of Governor Paul Dillingham. He is a member of the Massachusetts Commandery of the military order of the Loyal Legion of the United States, and a member of the Grand Army of the Republic. In the latter he has served as post commander, junior vice department commander in Vermont, judge advocate of the department of Massachusetts, and judge advocate-general of the national organization.

He has always been active in local affairs, serving as moderator of town meetings, president of the Rutland Board of Trade, president for seven years of the Wellesley Club, superintendent of Sunday-school, chairman of the standing com-



A. W. Kenton

mittee of the Unitarian Church at Wellesley Hills, etc. He was a delegate to the Republican National Convention in 1892, and is now serving for the second year as a member of the Massachusetts House of Representatives, his second election having been made without opposition. In the campaign of 1896 he was a prominent candidate for a nomination as member of Congress from the fourth district, but an A. P. A. movement carried some of the caucuses, and his leading competitor was nominated on the fifth ballot by one majority. Colonel Clarke was then asked to run on nomination papers, and was assured of such support by leading men of both parties as indicated his success, but he declined to be a candidate. The Republicans of the district expect him to be a candidate again, at the right time. As speaker and writer he has an enviable reputation and is a tireless worker.

Colonel Clarke married January 21, 1864, Josephine, youngest daughter of Hon. E. D. and Eliza (Hodgkins) Briggs, of Rochester, Vt., and has had three children, of whom only one, Mary, now a young lady, is living.

NATHANIEL WHEELER.

NATHANIEL WHEELER, founder and president of the Wheeler & Wilson Company, was born at Watertown, Conn., December 7, 1820, and died at his home in Bridgeport, Conn., December 31, 1893. He was the son of David and Sarah DeForest Wheeler, and a descendant in the seventh generation from Moses Wheeler, who came from Kent, England, in 1638, settled in New Haven, Conn., in 1641, and about two years later moved to Stratford, Conn., near the Housatonic river, where he lived to the age of one hundred years.

David Wheeler, the father of Nathaniel, was a carriage-maker at Watertown, and the son worked at this trade, earning quite a reputation as a tasteful painter and decorator of carriages. His father retired from the business to his farm in 1841, Nathaniel having just reached the age of twenty-one, and for the next five years the energetic young man carried on a successful business. About 1846, he began the manufacture of buckles, buttons, eyelets, and slides for hat-bands, this having become an important industry in the neighboring town of Waterbury. He was one of the first to make polished steel slides for ladies' belts, and by the introduction of improvements in machinery, the price which had been eight dollars per gross, was reduced by him to twenty-five cents per gross. In the same town Messrs. Warren & Woodruff were also engaged in a similar business and in the manufacture of suspenders. He formed a partnership with them in 1848, the firm-name being Warren, Wheeler & Woodruff. They erected a new factory, and Mr. Wheeler became the active business head of the concern, having entire charge of the factory. He made frequent trips to New York, in the interest of the business, and it was while on one of these that he learned of Allen B. Wilson's sewing machine, then on exhibition in the New York *Sun* building on Nassau street. He inspected the machine, and being greatly impressed with it, entered into negotiations with E. Lee & Co., who controlled the patent, with the result that he secured the contract to make five hundred machines in the Watertown factory, and Mr. Wilson was engaged to superintend the manufacture of them. Relations with E. Lee & Co. soon ceased, but later, with his old partners, and Mr. Wilson, he organized a new firm, under the name of Wheeler, Wilson & Co. Although all these gentlemen bore an important part in the development of the sewing machine, its great success was due to untiring energy and business acumen of Mr. Wheeler. Mr. Wilson improved the machine, but many sugges-

tions for its development came from Mr. Wheeler. It was on August 12, 1851, that Mr. Wilson obtained a patent for his perfected machine.

Then came the critical period with the company when Mr. Wheeler's capacity for making others see what he saw himself found its highest expression, and when his ingenuity and courage marked him as a man of exceptional ability. His enthusiasm was intense, and his tenacity of purpose was manifested everywhere he went with the machine. New York, Philadelphia, Boston and many other cities were visited, and the introduction to the public of the machine fell entirely to him.

The time came soon after when the Watertown factory was not adequate, and outside capital became interested. In October, 1853, the Wheeler & Wilson Manufacturing Company was organized with a capital of \$160,000. Of this amount \$100,000 was for the patents, and \$60,000 for the plant and stock on hand. The new stockholders paid \$70,000 for their shares, and gave notes in payment which were liquidated promptly as they fell due, out of the profits. Mr. Wheeler held the offices of president and general manager from first to last.

In 1856 the company purchased the factory of the Jerome Clock Company, defunct, at Bridgeport and removed there. The factory was not equal to the demand for machines, and Mr. Wheeler obtained plans to increase the capacity from twelve to twenty-five machines per day. These he submitted to the stockholders, who, inclined to be skeptical, at first thought the expenditure almost reckless. He finally won them over, and then made the announcement with pride.

"Gentlemen, I believe we will now be able to supply the demand for machines of the entire world." He himself did not dream that the time was coming when the capacity of the factory would be increased to several hundred machines per day.

The successive improvements of the machine were due in a large measure to Mr. Wheeler, and the patent records of his inventions are as follows: In 1876 and in 1878 he patented wood-filling compounds, now in general use; in 1876, with J. A. House, he patented a power-transmitter clutch; in the same year, with Philo M. Beers, an improvement on a former invention of Beers for polishing needle eyes; in 1878, a refrigerator; in 1883, a ventilating arrangement for railroad-cars, also a system of heating and ventilating houses; in 1885, with Wilbur F. Dial, the eccentrically-centred loop-taker, also the feed-regulator for the No. 12 machine (two patents); in 1890, the bearer-hook used in the No. 2 machine (two patents) for tension release and one for combinations of pads in the No. 9 machine. He also patented a design for cabinets.

One of the most valuable of Mr. Wheeler's inventions was that of the patent wood-filler, which, through the high polish it gives to hard woods, is of great value in all kinds of cabinet work, occupying, as it does, less than half the time of doing the work in the old way. That patent is controlled by the Bridgeport Wood Finishing Company, located at Lanesville, in New Milford, of which Mr. Wheeler was president for many years.

In time the Wheeler & Wilson sewing-machine found its way to all parts of the civilized world, and the output of the factory was increased to 600 machines per day.

Mr. Wheeler was closely identified with the New York, New Haven and Hartford Railroad Company. At the time of his death he was a director, a position which he held for many years, and one of the most valuable members of the board. He was also a director in the Willimantic Linen Company; Fairfield Rubber Company; in the City National Bank of Bridgeport; Mountain Grove Cemetery Association, of Bridgeport; The Bridgeport Hydraulic Company, and an officer in several other corporations in which he had financial interests.

The qualities which had made him one of the foremost men of the time in the manufacturing world were not overlooked by those with whom he came in contact in his daily life. He was several times elected to the common council, and in 1872 represented Bridgeport in the House of Representatives. In 1873 and 1874 he was chosen a state senator from his district, and served with distinction. The educational interests of Bridgeport owe much to him. He served as a member of the Board of Education, from its inception, until about two years prior to his death, and the system of ventilation of the Bridgeport public schools was his invention. He was invaluable in his department and his retirement was a source of general regret. He was a member of the Building Committee of the High School, and also of the commodious Fairfield County Court House. He was also a member of the commission which had charge of the building of the State Capitol at Hartford, which has the distinction of being one of the few public costly buildings in this country, erected within the appropriation. Not only this, but it is universally conceded to be one of the handsomest state-houses in the country.

Mr. Wheeler never sought higher political honors, although his consent was all that was lacking to secure for him the nomination for Congress and the governorship of the state.

His genius and achievements brought him high honors in foreign lands. The Wheeler & Wilson Company's display at the World's Exposition at Vienna, in 1873, caused the Austrian Emperor to bestow upon him the cross of the Order of Francis Joseph I. This made him a knight of the empire, entitling him to the prefix of "Sir." The title ends with the life of the person, and one of the requirements is the return of the decoration to the emperor. Mr. Wheeler never wore the cross but once, and that being on a special occasion at the World's Exposition at Chicago. At the Exposition Universelle, Paris, in 1889, he received the Cross of the Legion of Honor of France, with the rank of Chevalier.

For thirty-six years Mr. Wheeler watched the growth of Bridgeport, and was identified with all that was for its best interests. His public-spirited exertions and liberality in behalf of the city, made him foremost among its citizens. Many sanitary reforms, including an improved system of sewerage for the city, were directly the result of his efforts. To him was due the purchase of the city's first stone-crusher, which resulted in Bridgeport having a better system of roads than any city of similar size in the country.

Mr. Wheeler's public services were known to some extent and appreciated, but there were many ways in which he was the benefactor of his fellow-citizens which were not so well known. Mr. Wheeler had a natural reserve and dignity but beneath these were a warm heart and philanthropic motives which those who knew him best attest. Nothing speaks more in praise of him than the happy relations which always existed between himself and the men employed in the factory; of these many came to Bridgeport with the Wheeler & Wilson Co, prospered as the great concern grew, and spent almost a life-time in the immense factory. The relations between employer and employed were so harmonious that during his entire management of the company there was not a single strike, nor anything approaching one, all differences, if any existed, being adjusted by him in a manner which won him the high esteem of all his men. Their loyalty to him and their sympathy for him during protracted illness, found expression in a beautiful basket of flowers, accompanied by a card suitably inscribed, sent to his residence on Christmas morning 1893, a few days before his decease; even then in his exhausted condition Mr. Wheeler appreciated this manifestation of good will and expressed a desire to see them all and to take each one by the hand.

Mr. Wheeler was a man of strong convictions and held tenaciously to opinions once formed. Nothing could swerve him from what he believed to be right. He was a firm friend even to the extent of financially aiding others and his generosity and desire to aid friends in the development of business was unbounded.

Mr. Wheeler in personal life was quiet, unostentatious and of retiring nature. At his handsome home, on Golden Hill street, he lived happily surrounded by a loving family. He was especially fond of fast horses, and his stables were always filled with blooded stock. He was fond of speeding his horses on the Seaside Park track. He was the founder and first president of the Seaside Club, which from its beginning was the prominent social organization of the city. In religion he was liberal, both in opinion and in his contributions, and he was for many years a valued member of the vestry of St. John's Episcopal church, toward the building of which he contributed munificently.

Mr. Wheeler was twice married, first, in 1842, to Miss Huldah Bradley, of Watertown, who died in 1857; of their four children two are living, Samuel H. Wheeler, of Chicago, and Ellen B., wife of Edward Harral, of Fairfield, Conn. Miss Mary E. Crissy, of New Canaan, Conn., his second wife, survives him; and two of their four children, Archer Crissy and William Bishop, live with her at the family residence on Golden Hill. Harry De Forest, their eldest son, died at the age of eighteen years.

Mr. Wheeler was succeeded in the Wheeler & Wilson Company by his eldest son, Samuel H. Wheeler, of Chicago.

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WILLIAM L. BRADLEY.

THE lives of our private citizens are seldom chronicled, though they may furnish examples of perseverance and ability which are as worthy the pages of history, and as instructive to future generations as the biographies of our public men. Such a life was that of William L. Bradley, who was born in Cheshire, Conn., in 1826. He was a lineal descendant of William Bradley, a friend of Cromwell's, and a major in his army, who came to this country from Bingley, England, in 1643, and became one of the first settlers of North Haven, Conn. He was the second son of Levi and Abigail Ann (Atwater) Bradley, of Cheshire, Conn. Levi Bradley was a prosperous farmer and a man of strong character and great thrift.

William L. spent his childhood on his father's farm, attending the district school in his native town until the age of eleven. He then attended the Southington and Cheshire (Conn.) Academies for two years, and thereafter the Lancasterian School in New Haven for six months. At the age of thirteen he began his mercantile life as a dry-goods clerk in New Haven, Conn., where he showed such marked ability, that at the age of seventeen he was offered, and accepted a partnership in one of the largest dry-goods houses in that city, with an equal interest in the profits in return for his services. His surroundings, however, proving uncongenial to his tastes, he left New Haven about a year later, and entered the employ of Chas. Parker, a large hardware manufacturer of Meriden, Conn., as traveling salesman.

Possessed of a natural aptitude for business, and a fixed determination to succeed in anything he attempted, he devoted himself to his employer's interests with such untiring energy that he soon became master of his new position and contributed largely to the development of Mr. Parker's business, which grew rapidly.

While thus associated with Mr. Parker, and with his consent, he formed a co-partnership with a friend for the manufacture of leather portemonnaies, which he



W. L. Beattie

sold to the trade during his evenings after his other duties were ended. This business proved very remunerative, the books of the firm showing a profit of over \$40,000 at the end of the first year, and yet, through his partner's mismanagement of the firm's finances, Mr. Bradley found himself \$20,000 in debt as a result of this venture.

This was the first crisis in his career, and in meeting it he showed that indomitable courage and perseverance in times of adversity, which were such strong traits in his character, and which, with marked ability and unswerving integrity, enabled him afterwards to climb from the lowest round to the top of the ladder.

Immediately he dissolved the partnership, and explained the situation of his affairs to Mr. Parker, who promptly advised him to compromise his debts. This, Mr. Bradley flatly refused to consider, stating that he would pay one hundred cents on the dollar and no less. "How are you going to do that?" asked Mr. Parker. "Either you must double my salary and pay me the same for four years in advance," replied Mr. Bradley, "or I must go into some other business on my own account." As he was then receiving a salary of \$3,000 per year, this proposition meant an advance of \$24,000 by Mr. Parker, who tried hard to dissuade him from assuming a burden, which must, it seemed to him, handicap his future, and only postpone his failure. To Mr. Bradley, however, there was no such word as fail, and Mr. Parker seeing his unfaltering determination, and appreciating the great value of his services, finally consented to his proposal. The money was advanced, and his creditors were paid off, with no one but Mr. Parker knowing what had taken place.

Those four years following were a period of great struggle, when full services must be rendered to his employer without further compensation, while he must support himself and family out of profits derived from other enterprises, in which he engaged with Mr. Parker's consent.

During this period he formed a co-partnership with his brother, Nathaniel L. Bradley, and his brother-in-law, Walter Hubbard, of Meriden, Conn., under the style of Bradley & Hubbard, for the manufacture of clocks and small metal wares, which afterward became the Bradley & Hubbard Manufacturing Company, now the largest manufacturers of gas and electric fixtures and ornamental metal goods in the United States.

In 1861 he resolved to seek a broader field and more congenial occupation. Having a natural fondness for everything pertaining to agriculture, and certain new discoveries in this art abroad having attracted his attention, he became convinced that chemical fertilizers were destined to play an important part in the agriculture of our country, and determined to embark in this new and wholly undeveloped industry.

In his visits to Boston he had made the acquaintance of Oakes Ames, and knowing his reputation of lending a willing hand to young men, he decided to lay his project before him. Mr. Ames was favorably impressed with his plans, and, recognizing his high character and ability, consented to endorse Mr. Bradley's notes for a limited amount on the oral promise that he should receive one-fourth of the profits of the business.

With this backing as his only capital, he began the manufacture of commercial fertilizers on the banks of the old South Bay, Boston. As little was then known of chemical plant-foods or their preparation, much had to be done in the laboratory, factory and field in the way of experiment and research, and many years were spent in this preliminary work before the business was safely launched or returned any profit to its founder. Many perplexities were encountered, which to most men would have seemed insurmountable, but by determined perseverance and constant attention to his business, he overcame all obstacles and successfully founded the

manufacture of commercial fertilizers in this country, and a business which became during his lifetime the very largest and most successful of its kind.

The small South Bay plant was soon outgrown, and a few years later the works at North Weymouth, Mass., were begun, which were destined to become the largest fertilizer works in the whole world.

Realizing that success depended solely upon the actual results obtained from the use of his fertilizers, he early established a high reputation for his goods, which came to be used on all kinds of crops and soils, proving a great boon to farmers who had impoverished their lands by long-continued cropping. By his untiring zeal and able management, the business was rapidly extended until Bradley's Fertilizers came into common use by progressive farmers from Maine to Florida.

During this development of the business, Mr. Ames continued to endorse for Mr. Bradley, and when Mr. Ames became involved in his vast railroad projects, requiring the expenditure of enormous amounts of money, Mr. Bradley, in turn, became an endorser on the paper of Mr. Ames for the latter's accommodation, so when the great financial panic of 1871 swept over the country, Mr. Ames found that he had overtaxed his resources, and both he and Mr. Bradley were obliged to temporarily suspend payment, in common with a great many others whose credit had been unquestioned. Mr. Bradley's determination to pay dollar for dollar was as strong as ever, and he earnestly solicited and obtained an extension from his creditors of six, twelve, eighteen and twenty-four months, with interest at seven per cent. All of these obligations were promptly met at maturity, and at the end of two years he had paid in full an indebtedness of \$523,000, with interest; he had saved his business, and had again maintained his credit and reputation, dearer to him than all else.

Soon after this, in 1873, Oakes Ames died, and in order to best protect his varied interests his estate was declared insolvent, which rendered Mr. Bradley's position extremely embarrassing, for Mr. Ames had negotiated about \$200,000 of Mr. Bradley's notes and endorsements for his own accommodation. As \$80,000 of this paper had come into the possession of Oliver Ames & Sons, Mr. Bradley went to Frederick L. Ames, the managing partner, to see what arrangement he could make for retiring these notes which had been used for his uncle's benefit. As Mr. Ames seemed disinclined to make any settlement, Mr. Bradley requested thirty days' time, promising to submit a proposition at their expiration which Mr. Ames would accept. At this Mr. Ames demurred, arguing that he could not agree to accept in advance an unknown proposition. But Mr. Bradley insisted that the proposition would be one which he *would* accept, and Mr. Ames, relying on Mr. Bradley's word and his confidence in his ability to fulfill his engagements, granted the request. At the expiration of the thirty days, on the hour and minute named, Mr. Bradley went to Mr. Ames's office and laid down a cashier's check for the full amount of the notes, with interest added at the legal rate, much to Mr. Ames's surprise and satisfaction.

Through the able management of Mr. Ames's executors (his sons, Oliver and Oakes A. Ames), his estate was not only rendered solvent, but paid to his heirs several millions of dollars besides, so that all of this accommodation-paper was afterwards paid by his executors, to whom Mr. Bradley also paid \$100,000 for Mr. Ames's interest in his business. Thus the close business relations which existed so long and pleasantly between Mr. Ames and Mr. Bradley resulted in mutual benefits, and justified their unbounded confidence in each other.

One of Mr. Bradley's greatest characteristics and most serviceable factors in his business qualifications was this phenomenal resource in times of emergency. One of



Thos J. Forder.

his associates in business used to say that he seemed almost to court emergencies in order to gain the satisfaction of extricating himself successfully from them.

In 1872 the business which had been conducted in the name of William L. Bradley was transferred to the Bradley Fertilizer Company, a corporation organized under the laws of Massachusetts, with Mr. Bradley as its President and sole manager, and later, branch offices were established at Rochester, N. Y.; Cleveland, O.; Baltimore, Md.; and Augusta, Ga., in order to facilitate the handling of the large business which had grown up in all these sections.

Mr. Bradley also became largely interested in other fertilizer works located at Carteret, N. J.; Cleveland, O.; Baltimore, Md., and Charleston, S. C. He operated extensive phosphate mines in South Carolina and Florida, and was an owner of real-estate in nearly every Atlantic coast state from Maine to Florida, having among other farms a half interest in the renowned Montpelier estate in Orange county, Va., the home of President Madison.

Though possessed of an iron constitution, his early struggles and constant cares had impaired his health, and, having amassed an ample fortune, he gave up the active management of his business to his sons during the latter years of his life, and devoted much of his time to his chosen occupation, farming and landscape gardening, at his beautiful country seat at Hingham, Mass., where he died, after a short illness, on the 15th of December, 1894, at the age of sixty-eight.

In 1848 Mr. Bradley married Frances Martina Coe, a daughter of Calvin and Harriet (Rice) Coe, of Meriden, Conn. Two sons, Peter B. and Robert S., and one daughter, Abby A., survived him.

THOMAS JAMES BORDEN.

THE family to which the subject of this sketch belongs is descended from an ancient Norman ancestor bearing the name of Bourdon, derived from a Norman village named Bourdonnay. John Borden, of Borden, England, had a son Richard, who came to New England about the year 1635. John Borden, son of Richard, had a son Richard, who was the father of Thomas. The oldest son of Thomas was Richard, who had a son Thomas. The last Thomas had a son Richard, who was known by his military title of Colonel, and became a distinguished manufacturer in Fall River, Mass. To Colonel Borden more than to any other man the city of his residence owes its prominent position in the manufacturing world. He was born in that part of Fall River which was then Freetown, April 12, 1795, and married, February 21, 1828, Abby Walker, daughter of James and Sally Durfee, of Fall River. He died, February 25, 1874, having had seven children, of whom the subject of this sketch was one.

Thomas James Borden, son of Colonel Richard and Abby Walker (Durfee) Borden, was born in Fall River March 1, 1832. He received his early education in the schools of his native town, and at the age of sixteen entered the office of the Fall River Iron Works Company, of which his father had been the treasurer since the organization of the enterprise in 1821. At the end of a year, finding the business with which he became thus associated congenial to his tastes, he determined to obtain a better technical education than he then possessed, and with this view spent two years in the Lawrence Scientific School at Cambridge, pursuing the study of engineering under Professor Henry Lawrence Eustis, and of chemistry under Professor

Eben Norton Horsford. In 1851 he returned to Fall River, and resuming his place in the office of the iron works company, remained in it until July, 1853. At about that time his father and his uncle Jefferson Borden, with others, bought the Globe Print Works, changing the name to the Bay State Print Works, and Mr. Borden was appointed agent and treasurer. After the panic of 1857 the Bay State Works and the American Print Works were consolidated, and Mr. Borden was retained as manager of the Bay State Works. During the disastrous season which preceded the consolidation, while capitalists and manufacturers were on every hand yielding to the pressure, the Bordens stood up like a wall against the overwhelming current, and when the tide receded, their resources were found to be not seriously impaired.

In 1860 Mr. Borden was appointed agent and treasurer of the Troy Cotton and Woolen Manufactory in Fall River, a company with 9,408 spindles and 252 looms, turning out an annual product of 2,400,000 yards of cloth. Under his direction, and in accordance with plans submitted by him, new buildings were erected and equipped, and within a year the enlarged mill was in operation, with 38,736 spindles and 932 looms, and yielding a product equal to 10,600,000 yards of cloth for the year. In February, 1876, he dissolved his connection with the Troy mill, having carried it along a most successful career. The value of the property had increased during his administration from \$225,000 to more than \$800,000, and had paid in dividends \$1,250,000.

While Mr. Borden was acting as agent and treasurer of the Troy Mill, the Mechanics' Mill Company was formed in 1868, and he was chosen president and agent. He was soon after appointed treasurer, and the entire management of the business was placed in his hands. The capital of the mill was \$750,000, and its buildings contained 53,712 spindles and 1,248 looms. In 1871 he organized the Richard Borden Manufacturing Company with a capital of \$800,000, subscribed chiefly by different members of his own family. This mill contained 45,328 spindles and 1,048 looms. He was made treasurer of the corporation, and continued in that position until February, 1876. Always a director in this mill, he was chosen president in 1874. From 1871 until 1876 he was the controlling head of the Troy Cotton and Woolen Manufactory, the Mechanics' Mills and the Richard Borden Manufacturing Company, the three mills containing 137,776 spindles and 3,228 looms.

It is unnecessary to delineate the character and attainments of a man who successfully and profitably managed the volume of business controlled by Mr. Borden. A thorough knowledge of all manufacturing details, capacity for enduring work, courage tempered by prudence, conservatism enlivened by daring, keen foresight, knowledge of men, discreet treatment of employees, a temperament not easily dismayed, and impregnable integrity have been the distinguishing features of his life.

In February, 1876, Jefferson Borden retired from the agency of the American Print Works, and Mr. Borden was induced to relinquish his management of the three mills which had met with unbounded success in his hands, and as treasurer, agent and director, to take his uncle's place, remaining, however, a director in the other mills.

He remained the treasurer and executive head of the American Printing Company until the close of 1887. Under his management the works were greatly enlarged and thoroughly organized for the rapid and economical production of certain specialties in printed fabrics, particularly indigo blue prints, of which it had become the largest producer in the world.

His brother, M. C. D. Borden, and himself had become owners of nearly all of the stock of the corporation. In December, 1887, he disposed of his interest to his brother, M. C. D. Borden, and retired from the corporation.

Shortly afterward he assumed the management of the Fall River Manufacturers'

Mutual Insurance Company as its president and treasurer, and, during the following year, took charge of the construction of a second mill of the Richard Borden Manufacturing Company, about doubling the productive capacity of that corporation.

In November, 1894, he assumed the management of three insurance companies in Providence, R. I.

He is now president and treasurer of four insurance companies, all of which make a specialty of insuring manufacturing and mechanical establishments. They are the State Mutual Fire Insurance Co., of Providence, R. I.; Enterprise Mutual Insurance Co., of Providence, R. I.; American Mutual Insurance Co., of Providence, R. I.; Fall River Manufacturers' Mutual Insurance Co., of Fall River.

He is also president of the Fall River Savings Bank, vice-president of the Metacomet National Bank, president of the Richard Borden Manufacturing Co., president of the Mechanics' Mills, director of the Old Colony R. R. Co., director of the Old Colony Steamboat Co., director of the Troy Cotton and Woolen Manufactory, director of the Borden Mining Co., of Frostburg, Md.

He was for many years treasurer and agent of the Watuppa Reservoir Co., of Fall River; director of the Boston Manufacturers' Mutual Insurance Co.; director of the Worcester Manufacturers' Mutual Insurance Co.; director of the American Mutual Liability Insurance Co., of Boston; director of the State Mutual Fire Insurance Co., of Providence; director of the What Cheer Mutual Insurance Co., of Providence, from all of which insurance companies he resigned when taking the executive control of the three insurance companies in Providence.

He is a member of the New England Cotton Manufacturers' Association and was one of its original organizers, and for several years one of its board of managers. He is a member of the American Society of Mechanical Engineers and has served on its board of managers and as its vice-president in 1888-89 and 90.

In municipal affairs he has been a member of the common council and its president in 1874-75, chief engineer of the fire department several years, resigning therefrom in 1872, and on the creation of a board of police and license commissioners in 1894, by a special act of the legislature, was appointed by Governor Greenhalge its chairman. He took an active interest in military affairs from 1863 to 1871, serving as lieutenant, captain and colonel, the latter in command of the Third Regiment of the Massachusetts militia, and is a member of Richard Borden Post, 46, of the Grand Army of the Republic.

In his religious affiliations he has long been connected with the Central Congregational Church in Fall River, and as chairman of the building committee, supervised the erection of the new edifice on Rock street. During the past twenty years he has been and still is a corporate member of the American Board of Commissioners for Foreign Missions.

Colonel Borden married February 20, 1855, Mary E., daughter of Ebenezer A. Hill, and has had four children, of whom three daughters are now living.

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JONATHAN FLYNT MORRIS.

JONATHAN FLYNT MORRIS, born at Belchertown, Mass., March 20, 1822, and at the age of two years left an orphan by the death of his father, lived with his maternal uncle, Rufus Flynt, in Monson, Mass., thence till 1836, when he went to New York city, where he attended school and served in mercantile houses till 1843, when he made a voyage to Hayti as supercargo. In January, 1844, he

returned to that island, and at Port de Paix, in the English house of Elie & Coles, afterwards Charles J. Coles & Co., became chief and confidential clerk with full power of attorney. In April, 1847, he went to the branch house, lately established at Gonaïves, and there in the following summer was brought so low by yellow fever that he sought recovery by a return to New England.

In 1844 he was sent by Coles & Company to New York on business. On the voyage back the brig James A. Marple, in which he took passage, was wrecked on the night of December 16th, near Caicos. All on board were saved with much of the cargo. The entire party made their way to Turks Island, ninety miles distant. Finding no way of escape thence except by return to the States, Mr. Morris and a fellow-passenger named Barrett, bought and provisioned a small boat with the view of thus reaching San Domingo or Hayti, one hundred miles beyond. Hiring a sailor, they started on the perilous venture. A severe gale soon struck the frail craft. For thirty-six hours neither land nor sail was seen. After three days and nights of suffering they landed on the northern coast of Hayti, about two league from Port de Paix.

After the recovery of his health Mr. Morris entered the service of the present Boston and Albany Railway, in the cashier's department at Springfield, where he remained till he accepted the position of teller in the Tolland County Bank, at Tolland, Connecticut, in March, 1850. He took the cashiership at the opening of the Charter Oak Bank in Hartford, October 3, 1853, and was elected president September 3, 1879, holding the place till his resignation, October 3, 1893, after forty years of continuous service.

Mr. Morris was one of nine persons who met in Hartford February 4, 1856, to take initial steps for the formation of the Republican party in Connecticut. He is executor and trustee of several large estates, and treasurer of the Hartford Theological Seminary, of the Connecticut Historical Society and of the Wadsworth Athenæum. Locally, he is held in high repute as an antiquarian and genealogist. As the fruit of long and careful labor he published in 1887 an elaborate genealogical and historical register of the descendants of Edward Morris, who moved with a party of about forty men from Roxbury, Mass., to Woodstock, Conn., in 1688, as original settlers of the plantation.

Mr. Morris has written and published a number of monographs, mostly on historical subjects, and has accumulated, by purchase and otherwise, valuable collections of historical papers, notably with regard to the career of Jeremiah Wadsworth, commissary-general of the Continental Army, and later of the French forces in America.

HENRY BABBITT BENNETT.

MR. BENNETT is one of the prominent business men of Portland, who have achieved success as the result of their native abilities, persistent enterprise and laudable ambition to occupy a place in the front rank of their community.

His father, Samuel William Bennett, was born in the county of Derbyshire, England. About 1830 he came to America, and located in Woodstock, New Brunswick, where he engaged in the cabinet-making business, at which trade he was a skilled workman. About 1843 he removed to Houlton, Me., where he married Nancy Prentice, daughter of Deacon Samuel and Eunice (Putnam) Kendall; and he died,



W. S. Denny

January 20, 1850, in Butte des Morts, Wis., while there in the interest of lumbering, in which business he was at that time engaged. They had three children: Lilla Kendall, deceased, who married William Randolph McDonald, of Calais; Charles William, a professor of music, who is now a resident of San Francisco, Cal.; and Henry Babbitt, the subject of this sketch.

His mother, Nancy Prentice (Kendall) Bennett, was born in New Salem, Mass., July 24, 1808. Her father, Deacon Samuel Kendall, son of the Rev. Samuel and Annie (Green) Kendall, of New Salem, Mass., removed with his family in the spring of 1814 to what is now the town of Houlton, where he joined relatives and friends, the Houltons, and Putnams, and Dr. Rice's family, and built and occupied one of the then very few log houses in Aroostook county, where he lived to the age of eighty-seven, leaving a memory to which the highest tributes were accorded by his fellow-citizens. Mrs. Bennett taught a private school at the United States garrison in Houlton previous to her marriage, and as a writer of dialogues, prose and verse she has received many deservedly flattering notices, many of her patriotic pieces having been copied by the leading periodicals of the country. She left this life January 20, 1897, on the anniversary of her husband's death, at the residence of her son, H. B. Bennett, 16 Elm street, with whom she had made her home for fifteen years. She was a member of the New Jerusalem Church of Portland.

Henry Babbitt Bennett was born in Houlton, Me., on June 26, 1850, in the old Tenney house, and was named by General Babbitt of the United States army for his deceased son. He was educated at the public schools and the Houlton Academy. In April, 1867, he secured, through the intercession of Hon. James P. Baxter, a position in Portland with Edward Fairfield, as an apprentice at the trade of stencil-cutting. Six years later he bought the business, and employed Mr. Fairfield until his death. The business was quite small at that time, but as a result of his untiring devotion to his business, which was the oldest in the state, to which the manufacture of metal and rubber hand-stamps and engraving were being added, his factory and products were from time to time enlarged, until in 1893 his business became the largest establishment of the kind east of Boston, at which time the business was merged into a stock company, of which Mr. Bennett is now president.

Mr. Bennett is especially interested in the town of Old Orchard, where he resides during the summer months. In 1872 Mr. Bennett conceived that the Old Orchard Water Company was not progressing as it should for the best interest of itself and the growing town, and seeing what might be done, and having the courage to venture, bought all the capital stock of the company. Through his business sagacity and a large outlay of money, under his conservative management, the company has been brought up to a high standard of value. Mr. Bennett is still managing director and treasurer, and a large owner in the company.

In the spring of 1893, through the instrumentality of Mr. Bennett, a contract was obtained with the town of Old Orchard to light the streets with electric lights, and he at once constructed a fine electric light plant under his personal supervision, and formed the O. O. Electric Light Company, in which he is now a large owner, its treasurer and one of the directors.

Mr. Bennett is also a member of the firm of Duff Construction Company, who do a general contracting, manufacturing and plumbing business at Old Orchard. In all these enterprises Mr. Bennett has been eminently successful.

Mr. Bennett is a Republican, but not an aspirant for office. He is a member of the Masonic Order, and is a Past Master of Portland Lodge, No. 1, and was at its head in 1887, on the occasion of its one hundred and twenty-fifth anniversary. He is also

Past High Priest of Greenleaf R. A. Chapter, Past Eminent Commander of St. Alban Commandery of Knights Templar, a member of Portland Council of R. and S. M., and also a member of all the Scottish Rite bodies, having attained the 32° in Maine Consistory. He is a member of Maine Lodge, No. 1, of Odd Fellows, and has served as an official in various capacities; a member of Ivanhoe Lodge, of Knights of Pythias; Past Sachem of Samoset Tribe of Red Men; an original member of the Portland Athletic Club; a member of the Maine Genealogical Society, and of the Maine Charitable Mechanics' Association. Like his father and mother he is a Swedenborgian, and is a member of the Parish Committee of the New High Street New Jerusalem Church.

Mr. Bennett married, February 10, 1871, Georgia A. Gardiner, of Old Orchard, Me., whose father died during her infancy; her mother a native of Scotland, whose maiden name was Matilda Cuthbert, marrying Benjamin Milliken, son of Henry Milliken, of Old Orchard. Mr. and Mrs. Bennett had three children; Lilla Irene and Bessie Mildred only are now living with their parents, Neddie having left this life at the age of six years.



JAMES GILLESPIE BLAINE.

JAMES GILLESPIE BLAINE was born at West Brownsville, Pa., January 31, 1830. He graduated from Washington College in 1847, when not yet eighteen years of age. After graduating he was a teacher in the Military Institute, at Blue Lick Springs, Ky., and the Pennsylvania Institution for the instruction of the Blind, and while in the latter institution compiled a history of it, which is still preserved as a memorial of its distinguished author.

In 1854 he settled in Augusta, Me., and became part owner of the *Kennebec Journal*, and from this time began his remarkable career, which eventually placed him in the front rank of American statesmen. He was a delegate to the Republican Convention which nominated John C. Fremont for President, in 1856. He was a member of the Maine Legislature in 1859-60-61 and 1862, and the last two years, Speaker of the House.

He was elected to the 38th Congress in 1862, and successively re-elected to the 39th, 40th, 41st, 42d, 43d and 44th Congresses, and was three times speaker of the House. He was appointed to the United States Senate in 1876, and elected his own successor for the term beginning March 4, 1877.

He was Secretary of State in the Garfield and Harrison administrations, and in 1884 was the Republican nominee for the Presidency, and defeated by the small plurality of 1,047 votes in the state of New York, this being the pivotal state. He was the author of "Twenty Years in Congress," a work which has taken front rank among the standard publications of the day.

He married Miss Harriet Stanwood, who survives him. He died January 27, 1893.

CHAPTER CLX.

THE BREWING INDUSTRY IN NEW ENGLAND.

BY GALLUS THOMANN.

Manager of the Literary Bureau of the United States Brewers' Association.



THE writer of an historical essay, dealing with the origin of the art of brewing, even in countries of comparatively recent civilization, cannot escape the necessity of taking into account a certain element of mythical obscurity, calculated to throw a legendary glamor around and about the introduction of a beverage, the invention of which has been ascribed by the popular imagination of ancient times to certain benevolent gods, either male or female, according to the mythological systems of the different countries.

Even the history of brewing in New England is not entirely free from this legendary element, although there is, indeed, no dearth of well-authenticated historical facts from the very moment when the new communities emerged from the primitive conditions of the earliest camp-life. There can be no doubt that on the soil of New England beer had been consumed by people of European origin long before the landing of the Pilgrims. On their adventurous voyage of exploration, which resulted in the discovery of Vineland, the Vikings, it may safely be assumed, carried with them a supply of their favorite beverage; and there is more than an ordinary degree of internal probability in the assumption that Bartholomew Gosnold, who in 1602 landed at the point which he named Cape Cod, brought with him from Falmouth an ample supply of ale, which in those days was deemed an indispensable commissary article of every ship destined for the New World. The fact that Gosnold's party—the first Englishmen who trod upon Massachusetts soil—looked forward to a permanent settlement, lends additional force to our view. It may also be safely assumed that malt liquor was brought by all the exploring expeditions that touched the coast, or attempted settlements thereon; and this certainly applies to the party of John Smith, to whom we owe both the name, and a printed description of New England.

Concerning the Pilgrims of the "Mayflower," history affords ample evidence that they carried with them a supply of good, old English ale, the brewing of which they had continued in Holland, according to their own method and formula. At this point, however, legendary fiction appears to have invaded the sacred domain of Clio. It is said that this supply of beer was exhausted somewhat earlier than the organizers of the migration scheme had anticipated, and that, therefore, a landing was effected at the rather uninviting spot since then immortalized in song and story as Plymouth Rock. Whether conceived in a facetious spirit, prompted by a knowledge of the Puritans' well known appreciation of liquid cheer, or based, as it is

claimed, upon the semi-historical authority of a private diary, the story is characteristic enough in all its bearings to be true, and, if it were so, what a splendid illustration it would be of the old axiom, that in history very insignificant causes sometimes produce most marvelous effects! It is an historical fact that Robinson's stout-hearted flock of "Separatists," while yet at their first place of refuge in Holland, and considering, with all the seriousness of their character, the advisability of migrating to the Western World, were long undecided as to the course they should take; whether to accept the invitation of the Dutch to settle in New Amsterdam, or to avail themselves of the inducements held out by the Virginia Company, or, finally, to create an independent community in New England. Even after their embarkation, it was not positively determined whether Virginia or New England should be their destination. Now it may easily be conceived that, in conjunction with the historically demonstrable causes of the landing at Plymouth, the lack of beer helped to accelerate a final resolution, and thus prevented a settlement in Virginia—a course which might have turned the subsequent current of our national development into a direction totally different from that which led us on to political, moral and physical greatness. If we duly consider what all historians are agreed upon, namely, that the people of that part of the mother-country, whence the New England colonists originally emigrated, still represented, in a remarkable degree of purity, the old Teutonic stock—German tinged with Northmen's blood—we may be all the more inclined to accept this beer-story seriously; at all events, we shall understand perfectly what history tells us of the colonial brewer, and his place in the infant society.

The first authentic record of the existence of a public brewery dates back to 1637, so far as Massachusetts Bay, and to 1638, so far as Rhode Island is concerned; the former brewery was the product of the personal enterprise of Captain Sedgwick, the latter a communal creation of Roger Williams' nascent colony, a combined brew-house and tavern, placed under the supervision of Sergeant Baulston. These were not the *first* brewers, however, for, some time before either of them was mentioned, the licensed tavern-keepers had obtained permission to brew, or rather, to speak more correctly, were directed by the governing authorities to brew beer, of which both the quality and the price formed the subjects of early legislation and regulation. In addition to these brewing tapsters, as we might style them, nearly every well-to-do housewife brewed beer for her own household's consumption. While the domestic manufacture of distilled liquors, carried on in a most primitive way, was not likely to be neglected by a people whose drinking habits were quite as conspicuous as their piety, valor, endurance, prowess and moral rectitude, the early local histories and laws afford abundant proof that the best minds earnestly endeavored to stem the growing predilection for ardent spirits by bestowing fostering care upon brewing and malting.

The first regulative measure of this kind, the very one which unwisely gave to the afore-mentioned Captain Sedgwick a monopoly of brewing *strong* beer, was conceived in this spirit, and a subsequent law (1639) restoring to all tavern-keepers the right to brew, without any restraint whatever, all kinds of malt liquors, at the same time restricting the sale of ardent spirits to one person in each town, such persons to be appointed upon the recommendation of their respective town authorities, reveals in a palpable manner the objects of the lawmakers. The social standing both of the public brewer and the brewing tavern-keeper must have been a very exalted one; and for this assertion there is strong and direct evidence, not only in the fact that only voters and church members, men distinguished by their godliness and exemplary

deportment, could obtain the right to brew and dispense beer, but also in the still more significant provision of the earlier laws making the licensed persons responsible for the moral conduct of their guests and admonishing them to discountenance upon their premises any practices "not to be tolerated by such as are bound by solemn covenant to walk by the rule of God's word."

Throughout the colonial period, and up to the time of the adoption of the Constitution, the trade was practiced by the very best people—men whose names, like that of General Putnam (to quote but a single example), adorn the pages of our history, and remind us of the fact that this industry has at all times given to popular freedom and popular rights some of the most eminent champions; such men as James Artelvelde, to whom Hewlett, in his "*Heroes of Europe*," accords a prominent place, or Santerre, whom Dumas regarded as "the gigantic personification of the popular will," a man who sacrificed all he possessed in order to alleviate the sufferings of his people. Speaking of popular rights, it may not be out of place to remind the reader of the historical fact that, as early as 1644, the brewers of New Amsterdam, in attempting (fruitlessly, it is true) to uphold the principle that there can be no lawful taxation without representation, earned the title of champions of the people's rights—certainly a distinction to be proud of: to have been the first among the colonists who maintained a principle which, after the lapse of more than a century and a half, became one of the causes of our Revolution.

In all the laws and ordinances relating to brewing, erroneous economic theories, fiscal considerations and a natural but often misguided desire to foster home industries, seemed to be in continual conflict with the avowed intention of encouraging the consumption of malt liquors, not only for moral and hygienic reasons, but also because the minds of the Puritans were imbued with the universal conviction that beer was the salvation of the British nation; a sentiment to which, in the following century, the laurel-crowned poet, Warton, gave eloquent poetic utterance in his "*Ode to Oxford Ale*." This conviction arose from an appreciation of the physical, moral and intellectual qualities of a race addicted for many centuries to the use of beer as compared with the effects of spirits, just as in our own time the celebrated Pasteur wrote a book, designed to encourage brewing, because, as he states in the preface, he attributed the superior physical qualities of his country's conquerors to the use of malt liquors.

Unfortunately, every effort to accomplish the purpose here referred to, was frustrated by countervailing circumstances, resulting from the imperfect state of the art and the lack of proper materials, or by unwise measures, usually of a fiscal or protective character, adopted by the authorities under pressure of monetary needs or false theories. For instance, at one time the importation of malt was forbidden, in order to stimulate domestic malting; yet, within a short time thereafter, the malting of domestic wheat, rye and barley was prohibited on account of the scarcity of these cereals. At another time, a desire to encourage the exportation of wheat led to the enactment of a law imposing upon brewers a fine of ten shillings for every bushel of wheat used in brewing. Ordinances encouraging brewing by exempting beer from taxation were counteracted in their contemplated effects by regulations prescribing the quality and fixing the price of malt liquors without regard to the increased cost of materials and production. And in later periods the requirements of commercial barter with the West Indies and the competition with other American colonies for this trade, dictated measures protecting home distilleries in such a manner and to such an extent that the drinking habits of the people could not but be changed for the worse and brewing doomed to decay. The lawmakers realized that there was

great need of discouraging the use of strong drinks among a people who, while "fighting and praying," consumed immense quantities of "fiery Holland," which, as Holmes puts it,

"All drank as t'were their mother's milk and not a man afraid ;"

but the condition of things militated against the realization of their object, as we have shown, and thus within less than one hundred and fifty years, with the growing demand for rum as a medium of barter, brewing gradually declined, and inebriety continued to spread throughout the colonies with such alarming rapidity that again—too late, unfortunately—the lawmakers of the different colonies vied with each other in strenuous but fruitless attempts to revive the industry. These efforts were continued in the New England states and elsewhere after the Revolution; and as an illustration of them may be quoted the Massachusetts Act of 1789 "to encourage the manufacture and consumption of strong beer," totally exempting from all taxation the entire real and personal property of brewers. As one of the reasons for this measure, the act sets forth the fact "*that the wholesome qualities of malt-liquors greatly recommend them to general use, as an important means of preserving the health of the citizens of this commonwealth, and of preventing the pernicious effect of spirituous liquors.*"

That under more favorable circumstances the industry would doubtless have progressed rapidly we may infer from the uncommon degree of prosperity which both malting and brewing attained during the brief intervals of the unhampered operations of fostering legislation. As early as 1641, John Appleton, a representative to the General Court, established a very fine malt-house, and engaged extensively in the cultivation of hops. He and Samuel Livermore began very early to experiment with maize as a substitute for wheat, oats or barley, and Winthrop, the younger, of Connecticut, having devoted serious study to this question, finally read a most interesting paper on the subject before the Royal Society, in London, presenting at the same time samples of Indian corn beer of a very palatable nature and good quality. The malt of New England soon acquired a wide-spread reputation for its excellent quality, and relatively large quantities were exported to the neighboring colonies, particularly to Pennsylvania. This historical fact is of more than ordinary interest, for it shows that the use of maize, a material which, in conjunction with malted barley, the modern brewer uses for the improvement of the quality of his product, is a thoroughly American practice, sanctioned by long experience, and approved by the taste of the consumer. In a primitive way, however, Indian corn was used for brewing very much earlier, if we may believe Sir Richard Grenville, who, in his description of Virginia, relates that he saw maize used in brewing by the English of that colony.

Practically, brewing had ceased to exist as an industry before the New England colonies had reached statehood; it was revived for a short space of time when Alexander Hamilton introduced his revenue system, and many members of Congress, prompted by moral and hygienic considerations, supported his efforts to encourage the manufacture. The spirit of the times as to this question is clearly reflected in the speeches of eminent statesmen and the writings of philosophers, all of whom agreed, to quote the words of the "Digest of Manufactures" and of Gallatin, that "*the moralizing tendency and salubrious nature of fermented liquors recommend them to serious consideration.*" But neither such sentiments nor the positive labors of Dr. Rush, who aimed at the popularization of beer through the total exclusion of ardent spirits, could prevail against the firmly-rooted predilection for spirits, made universal by the general practice of rural distilling in all grain-producing states as

well as in those states in which the trade with the West Indies made molasses a common article of barter. In the entire country, excepting New York and Pennsylvania, the total production of malt-liquors in 1809-10 amounted to barely forty-five thousand barrels, of which about twenty-three thousand barrels (at $31\frac{1}{2}$ gallons) were brewed in Massachusetts, while New York and Pennsylvania produced 139,000 barrels.

During the brief era of the first internal revenue system, with its whiskey revolution and other open violations of the law, brewing did indeed regain some of its lost ground, only to relapse again into its former somnolent condition, however, as soon as the "free-whiskey" policy was re-introduced.

When, four decades after Hamilton's regime, the temperance movement began to make itself felt in New England, the brewing industry, the very agency which all our great statesmen had sought to employ against the whiskey-habit, had to atone for the sins of the rural distillers, to whose unlimited operations is due all the misery and degradation that lent a justifying aspect to the demands of the reformers. Under prohibitory rule in Maine, New Hampshire, Massachusetts and other eastern states, the general use of ardent spirits, manufactured outside of, but freely sold within the borders of these states, tended to confirm the run habit, and this was all the more inevitable, because for reasons well known to every one familiar with the question, malt-liquors cannot be sold surreptitiously without great expense and imminent risk of detection.

This explains why before the introduction of the internal-revenue system of 1861, which imparted a powerful impetus to brewing throughout the country, the industry lagged behind in Massachusetts, Connecticut and Rhode Island and was never able to gain a permanent foothold in Maine.

In 1863 the total production of malt-liquors in all the New England states, excepting Massachusetts, amounted to 49,607 barrels, a little more than double the quantity produced in 1809-10 in Massachusetts alone. Of these 49,607 barrels Connecticut produced 13,055; Maine, 2,207; New Hampshire, 25,945; Rhode Island, 7,029 and Vermont 1,371 barrels. In the same year (1863) the total production of malt liquors in Massachusetts amounted to 112,000 barrels.

At about this time a very strong current of public opinion, set in motion by official reports as to the manifest healthfulness of malt-liquors as shown by sanitary inspections of the Union camps, began to weaken the indiscriminate crusades of ultra-reformers against *all* kinds of stimulants; and Massachusetts, then burdened by an absurd prohibitory law, again, as so often before, took the lead in this counter-reformation. Several years elapsed before the movement culminated in the now celebrated report of the State Board of Health of Massachusetts, in which Dr. Bowditch, under the title of "Intemperance in the Light of Cosmic Laws," summarized the experiences, convictions and opinions of eminent scientists, philosophers, public officials and philanthropists from all parts of the globe, and reached the conclusion, based on this vast mass of testimony, that "light beer and ale can be used even freely without any very apparent injury to the individual or without causing intoxication, and that some writers even think they do no harm, but real good, if used moderately."

The direct result of this agitation and of a comprehensive legislative inquiry into the different phases of this question, under Governor John A. Andrew in 1867, was the repeal of prohibition in Massachusetts in 1868; Connecticut, after essentially modifying the prohibitory law, totally repealed it in 1867, substituting a licence law. In New Hampshire the manufacture and sale of beer, cider and native wine had not

been forbidden by the so-called Prohibition Act of 1855; Rhode Island also repealed her prohibitory law in 1863; Vermont was the only New England state, excepting Maine, of course, in which the Maine law of 1852 remained then in force.

From the almost instantaneous effect of these measures super-added to the operation of the Federal tax-law, the brewing industry, and, it is needless to say, the health and morality of the commonwealth derived inestimable advantages. Within three years, *i. e.*, at the end of the fiscal year 1866-67, the annual production of malt-liquors in the New England states had increased from 161,607 to 406,154 barrels. Massachusetts, unfortunately, re-enacted prohibition in 1869, permitting, however, the manufacture of liquors for exportation. In the following year this law was so amended as to permit the sale of malt-liquors; and in 1871 cities and towns were authorized to decide annually by popular vote whether the sale of malt-liquors should be permitted. Repealed in 1873, this act and a number of others were replaced by a license law, enacted in 1874 and supplemented in 1881 by local option. Constant changes subsequently tended to deprive the trade of stability and particularly of that complete security which lies at the bottom of every industrial success.

Although a prohibitory amendment to the Constitution was defeated in Massachusetts by a popular majority of forty-six thousand votes, in 1888, thus clearly demonstrating the will of the people, professional reformers continued their unwise opposition not only in this direction, but also against any discrimination in favor of fermented drinks; and as a result every year brought forth additional restraints designed to harass a trade which Hamilton, Jefferson, Madison and many other eminent Americans, including Dr. B. Rush, the real father of the temperance movement, regarded as the most efficient temperance agency—an opinion which the scientific inquiry conducted by Dr. Bowditch proved to be almost universal. With slight differences as to time and mode the trade labored and still labors under similar disadvantages in the other states. To this incessant legislative intermeddling, which frequently produced the most incongruous propositions copied from monarchical institutions or borrowed from small and insignificant cities totally unlike the great metropolis of New England in every respect, must be attributed the fact that these states are not now in the front rank of the brewing centres of this country. Even so, the progress of brewing there is truly marvelous.

Without entering into wearisome statistical details it may be stated, in a general way, that without adverse legislation of the nature here referred to—which, by the way, always tends to increase very considerably the home-consumption and surreptitious sale of ardent liquors—beer would in all probability be to-day the common drink of the *whole* people, and drunkenness—very much diminished since the more general use of beer—would be as rare to-day as it is in Bavaria.

If we compare the increase of production in the entire country with the output of Connecticut, Massachusetts, New Hampshire and Rhode Island during the decade ending in 1895—Maine and Vermont having dropped out of the list of beer-producing states—we shall find in such comparison ample reason for regretting, that unwise legislation, which Dr. Bowditch rightly regards as a fruitful source of intemperance, prevented popular taste and inclination from making malt liquors what they are in many German states noted for the sobriety of their people. That there is a strong popular inclination to adopt the lighter beverages is very evident from the development of brewing in spite of all impediments. The following figures illustrate the growth of brewing and afford an intimation of the progress that would have been attained in the absence of adverse measures:

	1885.		1895.
United States	19,216,630 barrels	. .	33,469,661 barrels
Connecticut	128,226 "	. .	301,872 "
Massachusetts	878,779 "	. .	1,336,345 "
New Hampshire	322,055 "	. .	368,628 "
Rhode Island	54,363 "	. .	188,968 "

In 1896 Massachusetts produced 1,580,330 ; Connecticut, 558,990 ; New Hampshire, 384,144 and Rhode Island, 195,430 barrels, a marked increase over the above figures.

Up to 1845 New England brewing was confined exclusively to ale and porter, and the manipulations of the brewer were of the simplest and most primitive kind, as compared with present-day methods. What would be regarded as a very small establishment now was then looked upon as a large brewery. Concurrent with the growing popularity of lager-beer came the almost countless mechanical improvements in both brewing and malting ; the utilization of the scientific researches of a host of such eminent men as Pasteur, Hansen, Delbrueck, Van Laer, Morris, Joergensen and many others ; the practical application of the many thorough investigations into, and works on, fermentation, yeast-culture, bacteriology, etc., and finally, the employment of artificial refrigeration, and it may be said that brewing entered upon a new era. These improvements did not, of course, reach the climax of their perfection at once ; decades elapsed before the new method became an indispensable requirement of success, and only in recent years has it overcome the conservatism of ale brewers, with the happy result of adding to the desirable qualities of ale some of the best characteristics of lager-beer ; among others a low alcohol-percentage, effervescence without deposit and brightness under low temperature. Since then the American brew-house has become a model of perfection not equalled in Bavaria, the "land of beer," as has readily been admitted by distinguished foreign authorities, such as, for example, Professors Delbrueck and Van Laer, who visited a number of eastern and western breweries. In this respect the brewers of New England stand in the front rank of the most progressive manufacturers, their establishments being equipped with the modern and costly appliances, which have taxed and rewarded human ingenuity in this particular field for years past.

Of the old colonial brewing plants not one has survived to this day—in fact one would look in vain for such a relic in any one of the other states. Of present-day establishments the breweries reaching farthest into the past, because occupying old brewery sites, are those now carried on by A. G. Van Nostrand, in Charlestown, dating back to Cooper & Gould in 1821 ; by the Hanley & Casey Brewing Company, on the site of the old Isaac Cook brewery in Roxbury, and by the Boston Beer Company, located in South Boston, where stood in years gone by the J. L. Phipps & Company brewery.

As Boston ale brewers of former years should be recorded the names of William Rutledge, Henry Souther, James McCormick, J. O. Kent, William T. Van Nostrand and Augustus Richardson, the latter two living, retired from active business. To John Roessle is due the distinction of being the first lager-beer brewer in Boston, in the latter forties, soon followed by G. F. Burkhardt, G. Habich, H. & J. Pfaff, Hechinger and others.

Of the sixty-nine breweries at the present time in operation in New England thirty-nine are located in Massachusetts, twenty in Connecticut, four in New Hampshire, five in Rhode Island and one in Vermont, twenty-four brewing ale, twenty-two lager beer, nineteen ale and lager beer, and four weiss beer. Their sales during

the year ending December 31, 1896, were as follows: one brewery sold over 200,000 barrels; two from 110,000 to 120,000; two from 90,000 to 100,000; two from 80,000 to 90,000; three from 70,000 to 80,000; three from 60,000 to 70,000; six from 50,000 to 60,000; seven from 40,000 to 50,000; fourteen sold from 25,000 to 40,000 and twenty-nine from less than 1,000 to 25,000 barrels. The breweries whose sales during that year exceeded 50,000 barrels, arranged as to output, are:

Frank Jones Brewing Co., Portsmouth, N. H., ale.
 Rueter & Co., Boston, Mass., ale.
 Bowler Bros., Worcester, Mass., ale and lager beer.
 Springfield Brewing Co., Springfield, Mass., lager beer.
 American Brewing Co., Boston, Mass., lager beer.
 A. J. Houghton Co., Boston, Mass., lager beer.
 Quinnipiac Brewing Co., New Haven, Conn., ale and lager beer.
 Narragansett Brewing Co., Providence, R. I., lager beer.
 Suffolk Brewing Co., Boston, Mass., ale and lager beer.
 The Roessle Brewery, Boston, Mass., lager beer.
 Alley Brewing Co., Boston, Mass., ale.
 Habich & Co., Boston, Mass., ale and lager beer.
 James Hanley Brewing Co., Providence, R. I., ale.
 A. G. Van Nostrand, Charlestown, Mass., ale and lager beer.
 H. & J. Pfaff Brewing Co., Boston, Mass., lager beer.
 J. K. Souther & Sons, Boston, Mass., ale.
 Eldredge Brewing Co., Portsmouth, N. H., ale and lager beer.
 Highland Brewing Co., Springfield, Mass., ale and lager beer.

The consumption of ale, as compared to that of lager beer, held its own in the New England States better than in any other section of the country, remaining for many years in the proportion of two to one, and it is only within a year or two that lager beer has reached a consumption about equal to that of ale.

Individually and as a body, American brewers, so far as intelligence, education and energy are concerned, compare very favorably with the men of any other industry, and for patriotic endeavors, solicitude for the public welfare and philanthropic efforts, their reputation cannot easily be surpassed. We have it on the very highest authority, *i. e.*, that of the secretary of the treasury, that no class of citizens responded more cheerfully and promptly than the brewers to the demand which their country made upon all loyal men in times of war, and the history of every city, where brewing flourishes, bears eloquent testimony to the trade's untiring readiness to assist every humane, charitable and public-spirited undertaking.

The importance of the brewing industry as a wealth-producing and tax-paying factor has never been demonstrated with anything like statistical accuracy. The United States Department of Labor, under the very efficient superintendence of Col. Carroll D. Wright, is at present preparing an economic work on the subject, which will doubtless disseminate a better knowledge and shed a clearer light upon this interesting matter. Some well-meaning, but misinformed persons, seem inclined to deride the idea that the brewing trade deserves to be classed among the great wealth-producing sources; they claim, on the contrary, that it is a wealth-consuming factor. Modern economists reason differently, of course; their views being tersely expressed in Adam Smith's "Wealth of Nations" in these words:

"The trade with the ale-house (by the workmen) is not a losing trade. In its own nature it is just as advantageous as any other, though, perhaps, somewhat more liable to be abused. The employment of a brewer, and even that of a retailer of fermented liquors, are as necessary divisions of labor as any other."

The profitableness of the industry, in an economic sense, becomes manifest, when we consider the extent to which agriculture, the trades and commerce depend upon brewing. An annual consumption of seventy million bushels of cereals, of forty million pounds of hops, of a vast quantity of hay and oats, and the employment of thousands upon thousands of the best draught-horses certainly mean something to the husbandmen and stock-raisers of our country; while the yearly disbursements of brewers to building and iron-working crafts, to coppersmiths, coopers, wheelwrights, glass-blowers and innumerable other trades amount in the aggregate to an immense sum. When Col. Wright shall have finished his work, it will be found, we venture to say, that in an economic sense, the brewing trade with its far-reaching industrial ramifications is second to none as a source whence flows the wealth and prosperity of our people.

Our lawmakers have not yet adopted the policy followed by the governments of nearly all civilized countries, in dealing with the temperance question—to lessen the tax-burdens imposed upon brewing to the end, that the mild, nutritious and refreshing malt beverages may become more and more popular. The internal revenue tax on malt liquors of one dollar per barrel of thirty-one gallons is still retained, and paid into the Federal treasury from 1863 to 1896 the sum of \$501,352,784.97, exclusive of the amounts accruing from special licenses. The liquor-laws of the New England states still class ale and beer as intoxicating liquors, the same as distilled spirits, although the popular verdict, as indicated by their growing consumption, plainly points to the wisdom of a broad legal discrimination in their favor.



HENRY H. RUETER.

HENRY H. RUETER was born in Guetersloh, a city in the Prussian province of Westphalia, then containing about five thousand inhabitants, since increased to nearly fifteen thousand, on Sunday, the 9th of December, 1832, as the youngest of seven children of Arnold Heinrich Rueter and his wife, Johanna Louise Auguste Von Eicken, there being besides a son and a daughter from the father's first marriage.

The family name of Rueter seems to be derived, according to the "Universal Lexicon" published in Leipsic in 1742 (Boston Public Library), from the occupation of land-surveying, and the same authority speaks of the Von Eicken family as one knighted far back in the past (*eine uralte adeliche Familie*) in crusading times.

Guetersloh, the birthplace of Mr. Rueter, has always been noted for the industry and enterprise of its citizens, is renowned for the quality of Westphalian hams there prepared, and, in all probability, may lay claim to the distinction of being the first place in Germany to which American bacon was exported. In the year 1849 three firms, with one of whom Mr. Rueter was employed when a young man of seventeen, formed a syndicate for the importation of that article, and sent a junior partner to Cincinnati, at that time the headquarters of the pork-packing business, to arrange affairs on this side. The first venture was somewhat disappointing, as the cargo of the vessel having the bacon on board had to be transferred in an English port to a vessel sailing under the English flag, for fear of Danish cruisers in the North Sea, the Sleswick-Holstein dispute having meanwhile culminated into open hostilities. The expense and delay caused by this trans-shipment proved detrimental to cost and quality, and thereby to the first impression made by American bacon on German

consumers. That the business has survived and prospered may be concluded from the fact that a printing firm there recently erected a large building, slate-covered throughout, whose entire outside boarding came from American bacon boxes.

Mr. Rueter left school at the age of fourteen, a common school course, supplemented by private instruction, being all the educational facilities then available in his native city. Since 1852 the city of Guetersloh rejoices in the distinction of having been selected by the Prussian government for the establishment of that unique institution of learning, the "Christian Gymnasium," distinguished from all other gymnasia (preparatory high schools for college education) by giving paramount attention to religious (Protestant) instruction and Christian supervision of pupils. King Frederick William the Fourth signalized the importance of the move by his presence at the inauguration.

On leaving school Mr. Rueter entered the office of his oldest brother, the city mayor, but soon after bound himself for four years to a wholesale West India goods house, till 1851, in which year, on the 12th of May, he sailed from Bremen for New York, arriving there just three months later, on August 12th, after one of the longest passages on record.

Mr. Rueter came to Boston without delay, having relatives there, and was first employed by T. Z. Pazolt, furrier, his brother-in-law, then keeping store at 360 Washington street, where the Hotel Savoy now stands. A thorough knowledge of German and previous instruction in French and English soon made him familiar enough with the English language to fit him for commercial employment. He found a situation with the wholesale hat, cap and fur-importing house of Samuel Emmes & Co., at the corner of Congress and Water streets, the firm later changing to William H. Slocum, and moving to the corner of Washington and Franklin streets, in which position he remained for over nine years till 1862. During this time, in 1858, Mr. Rueter married Marie Emilie Francisca Domansky, the daughter of a Danzig sea-captain, the union lasting till 1890, when his wife died, leaving a family of seven children, four sons and three daughters.

In 1862 G. F. Burkhardt, one of the pioneer lager-beer brewers of Roxbury, looking for a competent and trustworthy man to take charge of his office, made a proposition to Mr. Rueter, which he accepted with his employer's consent, who kindly released him from contract in view of the better prospects for the future. The duties of the position were manifold and exacting, and taxed the energy of the incumbent from about five in the morning till eight or nine at night—from fifteen to sixteen hours per day.

Mr. Rueter gave up this situation in 1864, but made a trip for Mr. Burkhardt to Richmond, Va., immediately after its evacuation in April, 1865, with a shipment per schooner of ale and porter, which was profitably sold by him for cash to a Mr. Alderdice, formerly a sutler in the Union army. In 1866, after his return from attending the Leipsic fair in the interest of T. C. Pazolt & Co., Mr. Rueter re-entered the employment of brewer Burkhardt, his compensation being fixed at a sum equaling one-third of the profits of the business (exclusive of malting), and guaranteed to amount to at least \$15,000 per year.

His connection with Mr. Burkhardt having again been severed in 1867, Mr. Rueter desired, if possible, to go into the ale-brewing business on his own account. Learning that Mr. John R. Alley, then brewing for John Bligh, in Providence, R. I., was desirous of changing his place, Mr. Rueter called on him and readily induced him to join in the project. With the help of Thomas B. Williams and William H. Slocum, Mr. Rueter's former employer, as capitalists, the Highland Spring Brewery



Henry H. Russell

was erected on land at the junction of New Heath and Parker streets, Roxbury, then owned by Mr. Williams, and containing a famous spring of the finest water—hence the name. The \$60,000 embarked by Messrs. Williams and Slocum in the venture, in return for which they received a ten years' partnership, proved a lucky investment.

The first brewing of ale made by Rueter & Alley—the firm-name adopted—was sent out to the trade on the 12th of February, 1869, and three years later, in 1872, the Highland Spring Brewery had risen to the distinction of being the largest brewery in the United States, its output for that year being one hundred and thirty-one thousand nine hundred and sixty-four barrels, over twenty thousand barrels more than that of any other brewery in the country, ale or lager beer. This unparalleled achievement was brought about by the decided superiority of Highland Spring ales over all others in the market, by good business methods and by an enviable reputation among the trade for reliability and fair and square dealing. In the keen competition for honors with other prominent breweries at the Centennial Exhibition in 1876, Highland Spring ale carried off the first prize for "perfection in every requisite of good ale, viz.; in color, brightness, taste and aroma," and at the American Institute Fairs in New York in 1875 and 1876 received medals for "best ales and maintained superiority."

Owing to the death of Thomas B. Williams, in 1879, shortly before the expiration of the existing partnership by limitation, the firm was dissolved, and Henry H. Rueter and John R. Alley carried on the business, under the old style of Rueter & Alley, till 1885, when Mr. Alley withdrew, and William A. Miles, Henry Clausen, Jr., and Henry W. Schmidt, all of New York, came in as partners, the firm-name being changed to Rueter & Co. Mr. William A. Miles retiring on account of his health in 1887, Mr. Robert C. Inslee, of New York, took his place, and the co-partnership, so constituted, was continued until 1894, when the firm of Rueter & Co. was incorporated under the laws of New Jersey, the incorporation of breweries in Massachusetts being prohibited by special act of legislature. Henry Clausen, Jr., having died in December, 1893, his interest in the business ceased in 1894, previous to incorporation.

It may not be out of place here to point out the hardship, if not injustice, entailed by the exclusion of breweries from the right of incorporation under the laws of this state, upon resident holders of bonds or stock of incorporated Massachusetts breweries, by reason of double taxation, especially when held by former partners, who adopted the corporate form as a matter of convenience merely. The law, after forcing such breweries, by this legal ostracism, into the position of foreign corporations, exacts the collection of taxes on both, the property and the securities representing the same.

Although up to the present time Rueter & Co. do not brew lager beer, but confine themselves to ale and porter, their sales exceed those of any other brewing firm in the city of Boston, the output of the Highland Spring Brewery for the business year ended January 31, 1897, amounting to 118,979 barrels, made up of the various brands of cream and half-flat ales, Sterling and India pale ale, porter and Sterling stout. The equipment of the brewery keeps step with every requirement of a rational brewing process, and the water-supply, so essential in a brewery, is exceptionally abundant in quantity and remarkably fine in quality.

The officers of the corporation are: Henry H. Rueter, president; Henry A. Rueter, treasurer; Henry D. Billings, secretary and assistant treasurer and Robert C. Inslee, who is the general manager of the brewing department. Frederick T. Rueter, a younger brother of Henry A., is also connected with the brewery.

Henry H. Rueter never accepted public office, and declined the nomination for alderman and for representative, even when the latter was offered him, not only by the Republicans and Democrats, but also by the Prohibitionists, with whom he had many an argument before Joint Legislative Committees on the Liquor Question, as to the wisdom of a broad legal discrimination between fermented and distilled liquors, and who often expressed their belief in the honesty of his convictions. One reason for declining public office is to be found in the large share of time and attention devoted by Mr. Rueter to the affairs of the United States Brewers' Association, from the time of his first official connection with the same, in 1872, to the present day. He held the position of president of this important trade-association, whose members produce nine-tenths of the malt liquors brewed in this country, from 1875 to 1880, presiding during that time over annual conventions at Cincinnati, Philadelphia, Milwaukee, Baltimore, St. Louis and Buffalo, and is at present a member of the board of trustees and the chairman of the publication committee. He is also the president of the New England Brewers' Association, to which office he was re-elected at the time of its reorganization, in 1886.

Mr. Gallus Thomann, the manager of the Literary Bureau of the United States Brewers' Association, writes to the publishers as follows: "Mr. Henry H. Rueter, of Boston, as president of the National Association, succeeded in securing both for himself and his industry a most enviable place in public estimation, and a relationship to the Federal government which is sufficient in itself to prove the unswerving integrity of purpose and absolute honesty of the aims of this body of American manufacturers. In the history of the brewing trade—part of which has already been written, soon to be followed by another volume—the intellectual attainments and moral qualities of this gentleman stand out in bold relief, reflecting uncommon credit upon the trade in that part of our country which we are wont to look upon as the home of every thing that is fairest and best in the moral and intellectual composition of our nation."

In politics Mr. Rueter is a Democrat, but he does not let partisanship stand in the way of following his convictions, and at the last presidential election he stood firmly on a sound money basis. He was born and brought up in the Protestant faith, believes in tolerance, and among other Christian virtues he practices and prizes that of temperance in the true acceptance of the word.

Mr. Rueter's residence is on Jamaica-way, at the corner of Perkins street, where three of his children live with him—the oldest daughter, Martha (Mrs. Gardner Washburn), who has had charge of the household since her mother's death; the youngest daughter, Gertrude, and the third son, Frederick. The second daughter, Bertha (Mrs. H. P. A. Clausen), lives in New York; the other three sons, Henry A., Conrad J., who is a lawyer, and Ernest L. M., who is superintendent of the Laminar Fibre Company, in North Cambridge, are married and have homes of their own. There are three grandchildren: Andrew Washburn, William Glover Rueter, and Frances Marie Clausen.

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JAMES WILLIAM KENNEY.

JAMES WILLIAM KENNEY is the son of Owen and Mary McKenney (*nee* Mary Canney), and was born near Londonderry, in the north of Ireland, January 2, 1845. In Ireland, where he has a brother and several sisters still living, the family name is McKenney, but his brother Neil (now deceased), who emigrated to America some years before James and established a successful grocery business in



James A. Kearney

the North End of Boston, by accident discontinued the Mc. Mr. Kenney was educated in the National Schools of his native county, and with education came a yearning for freedom and for broader fields of labor.

He landed in Boston March 22, 1863, at the early age of eighteen years, in the midst of the great Rebellion, the time that tried men's souls. Neil Kenney, as previously stated, being a successful merchant in the North End, it was but natural that on the arrival of his younger brother, James, he should place him at the head of the business as manager, entrusting him with full charge, his experienced eye having perceived in the young immigrant of eighteen, the keen business faculties with which he was endowed.

From his father, who was a reasonably prosperous farmer, he inherited traits of character which found a too limited scope for their display in a country cramped and oppressed by British rule, and his career in the New World illustrates the undoubted fact that thousands of young men are to-day living in the fens and downs of Ireland with expectations only of a bare livelihood, who, with richer opportunities and a freer field, might be raised to the higher ranks of civil and industrial life. This is the most melancholy feature of Irish wrongs, not the actual individual suffering, but the life wasted that might, under humane influences, be an important factor in the development of the race.

Neil Kenney was also associated with Samuel Litchfield, under the firm-name of Kenney & Litchfield, as a brewer on Tremont street, in Roxbury, and after leaving the grocery business at the North End, James entered their brewing establishment, and until 1870 occupied the position of master brewer. In July, 1870, having by industry and economy accumulated a small capital, he established himself as an importer and wholesale dealer on Tremont street, Roxbury, and he still carries on successfully that business.

Unlike many young men who have good positions and opportunities, he was not satisfied with a mere living obtained from his business, but his eye was ever on the future, and the possibilities of the higher use of the faculties which he knew he possessed. All the while he was supplementing the education he had received by a close observation of the world and its events, of the theory and ethics of business, and of human nature in its many and varied phases. He had already crossed the ocean, and in his experiences in a foreign travel, which has been several times repeated, his education was steadily going through a process of development.

In 1877 he started the Armory Brewery on Armory street, and in 1881 erected the Park Brewery on Terrace street, in the Roxbury district of Boston, where he began brewing ale and porter in January, 1882, and where he is still engaged in business individually. The capacity of this brewery is about sixty thousand barrels annually, and the goods are disposed of in Boston.

At this time the New England Brewing Association used all their endeavors to retard the progress which he had made by a vicious and powerful attack on him, in order to injure his business. But to-day, after all their efforts in that direction, his credit stands pre-eminently at the head of the brewing fraternity in Boston.

In 1893 and 1894 he organized and erected a new lager beer brewery on Terrace street, and in October, 1894, it was incorporated under the name of the Union Brewing Company, and capitalized at \$500,000, with Mr. Kenney as treasurer and manager, he also having the controlling interest by owning over one-half of the capital stock. The capacity of this brewery is one hundred and fifty thousand barrels per annum, and the sales are distributed all over New England, with Boston as the principal market.

In addition to the above, he was instrumental in organizing the American Brewing Company on Heath street, and was for two years a member of its board of directors. He is a large owner and operator in real estate, with interests in various other concerns, such as railroads, gas companies, banks and newspapers. He is a director in the Everett National Bank of Boston and in the Fauntleroy Hall Association of Roxbury.

In social life he is a member of the Roxbury Club, the Boston Athletic Association, the Charitable Irish Society, the Boston Cadets and the Knights of Columbus; but to these, so numerous and pressing are his business responsibilities, he devotes but little of his time.

Mr. Kenny was a Democrat until 1884, then leaving that party when they declared for "free trade," or, as they called it, "Tariff Reform." He is now a member of the Republican party, an advocate of Republican measures, and a thorough believer in protection, having studied in his European travels, the difference in wages paid in Europe and America, and knowing under such difficulties it would be impossible for us to compete. He has always taken an active part in politics, and was often asked to, but would never accept political office. He was married April 24, 1876, to Ellen Frances Rorke, of Roxbury, and has one daughter, Mary Agnes Kenney, who is now a student in the Academy of the Sacred Heart at Manhattanville, N. Y.

Mr. Kenney is a great lover of horses, and is the owner of some excellent specimens of that noble animal; and his turnouts are amongst the finest to be seen on the boulevards.

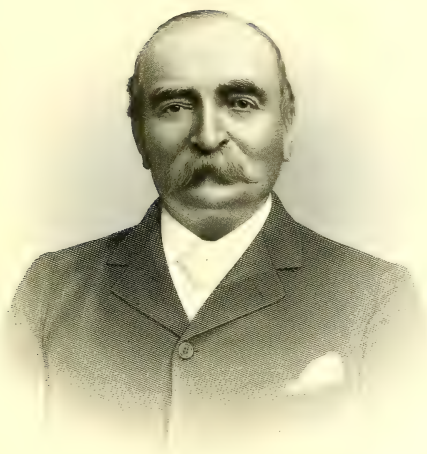
Mr. Kenney resides in an elegant house, surrounded with spacious and well-laid out grounds, on Seaver street, in the Roxbury district, overlooking Franklin Park, Boston's most magnificent pleasure ground, and his rooms, graced by the presence of valuable books and pictures, and other works of art, the products of the most renowned European and Oriental artists, betoken the cultivation and taste of the master and mistress of the mansion.

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JACOB PFAFF.

THE use of beer as a beverage in America is by no means recent, though within the last thirty years it has largely increased. The name beer is a generic one, applied not only to products of malt, but also to those of spruce, sassafras, ginger and other articles which are entirely free from alcohol. Among the Pilgrims, who landed at Plymouth in 1620, Dutch beer was a common beverage, probably a mild article, somewhat like the Strasbourg beer of to-day, with only one or two per cent. of alcohol. In Germany, where the methods of brewing obtaining in this country had their origin, a distinction is made between ale and beer on account of the different methods of fermentation used. Ale is produced by rapid fermentation, in which the yeast rises to the surface, while beer is fermented in cool cellars by a slow process, in which the yeast settles to the bottom. The latter is the true "lagerbier." In America, however, a modified form of the German "lagerbier" is manufactured, requiring less time for fermentation and containing less spirit.

It is in the form of "lagerbier" that the use of beer in this country has so rapidly increased within the last generation. It can undoubtedly be demonstrated that habits of intoxication have diminished as its use has increased, and if our legislators could be made to understand that prohibition, as at present understood and attempted to be enforced, is foolish and impracticable, the temperance cause would be materially advanced.



Jacob Hoff

Among the leading manufacturers of "lagerbier" in America, none occupy a higher position or enjoy a more widespread reputation than the subject of this sketch. A German by birth and in constant communication with the fatherland, he has had the best opportunities for learning the business in which he is engaged, and for keeping himself informed of new methods and processes of manufacture.

Jacob Pfaff is the son of Carl and Katherine Pfaff, and was born in 1829, in Hochspeyer, a village in Rhenish Bavaria. At five years of age he came with his father to America, and with him made Boston his home. He was educated in the public schools of Boston, and, having reached the age of manhood, was engaged as clerk and in other capacities until 1857. Like almost all of his countrymen in Boston and its neighborhood, his one thought and ambition was to become a business man, and to disregard those allurements which entice many immigrants of other nationalities into the political field. Possessed of a natural ability, strengthened and confirmed by a good education, he knew there was a place somewhere in the business world which he could worthily fill and in which he could achieve success.

In 1857 the brewery firm of H. & J. Pfaff was formed, consisting of his older brother, Henry, and himself. Their business was located in Roxbury, now a part of Boston, a section which has been a popular one among brewers, and which probably yields a larger product of beer than any section of the same size in the United States. At the time of the establishment of the firm in business the consumption of malt liquors in America was almost exclusively confined to the various ales of American and English and Scotch and Irish brews, and small importations of German lager were beginning to create a taste for that article.

The firm of H. & J. Pfaff was one of the first to enter into the manufacture of "Lagerbier," and its business rapidly increased in equal step with its consumption. Before the expiration of ten years the name of the firm had become almost identified with the new beverage, and throughout New England, though more especially in Boston and its vicinity, the Pfaff beer was enjoying a great popularity.

In 1893 the firm was organized as a corporation under the name of the H. & J. Pfaff Brewing Company, of which Mr. Pfaff was made president and his son, Charles Pfaff, treasurer. The popularity of the Pfaff beer has continued undiminished, and the business of the firm and company has steadily increased, until at the present time two hundred and fifty barrels are the daily product, the sale of which is chiefly confined to New England.

Mr. Pfaff has devoted himself so thoroughly to his business that he has given little time to avocations or pleasures outside of its daily routine. So far as pleasure is concerned, his connection with the Boston Yacht Club may be mentioned and his ownership of the schooner-yacht "Adrienne," on board of which during the summer months he found rest from the cares and labors of his business life. He was for four years commodore of the Boston Yacht Club, whose best days and greatest prosperity were due to his administrative skill. He is also a member of the Algonquin and Country Clubs, and takes special interest in their welfare. In the line of business outside of the corporation under his management, he is president of the Robinson Brewing Company in Roxbury; president of the Crystal Springs Manufacturing Company in Watertown, Mass., by which probably the best starch in the world is made; president of several successful gold and quicksilver mines, and director in the Boston Lead Manufacturing Company. The construction of the Highland Street Railway, running from Boston to Roxbury, was due in a great measure to his energetic efforts, and he was a director in the company until it was merged in the West End Railway Company.

Mr. Pfaff married in 1854 Hannah Adams, daughter of James W. and Altemira (Fiske) Gardner, and has two children—Charles, above mentioned, who married Cornelia Hathaway, of Boston; and Adrienne, who married William Hull Wickham, of New York.



SELIG MANILLA.

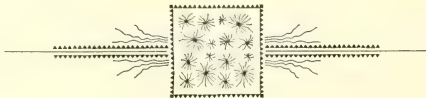
AMONG the men of enterprise, sagacity and brains, to whose business skill is due the increasing prosperity of Springfield, Mass., must be included Selig Manilla, the subject of this sketch. Though only a recent resident of that city he has, in his particular field, achieved a success, which has gone far towards making Springfield one of the leading centres of the brewing industry in the New England and northern states.

Mr. Manilla was born in Germany in 1845. He inherits the sturdy thrift and acute business qualities which are characteristic of the German people, and these elements, together with an indomitable energy and a broad and comprehensive knowledge of men and affairs, have enabled him to overcome every obstacle and to enjoy a business career crowned with success.

His first step, after acquiring a school education, was to enter the employ of the Johann Hoff brewery, in Berlin, where he remained until he was seventeen years of age. He then came to New York and engaged with the Lion brewery in that city, at that time the largest brewing establishment in the United States. Some years later he associated himself with Matthew White, then the largest malster in the state of New York, and later on became identified with F. G. & I. N. Van Vliet, the leading malsters in the country. In 1885 he assumed charge of the Abbott brewery in Brooklyn, and built up the business to a remarkably successful degree.

It is in Springfield, however, that Mr. Manilla has shown his true mettle and achieved his most pronounced success. As president and general manager of the Springfield Brewing Company, which he organized in 1890, he has practically revolutionized the brewing industry of New England, and to-day the company's sparkling "Tivoli" is almost a household word. The product of the brewery has increased from seven thousand barrels, in 1890, to more than seventy-two thousand barrels in 1894—a record unapproached by any five-year-old brewery in the world. To build up such a business, with its multiplicity of cares and details, is a gigantic industry, but in the lexicon, which Mr. Manilla uses, there is no such word as "fail."

The company also operates a complete bottling establishment and this, like the brewery itself, is a marvel of cleanliness, convenience and mechanical equipment. It is here that the famous sparkling "Tivoli" is bottled and shipped to every quarter of the globe. The success of the company and the rapidly increasing popularity of its product has led one observing writer to refer to it as "The New England Wonder."





Selig Marcella

CHAPTER CLXI.

THE DEVELOPMENT OF THE COURTS OF NEW HAMPSHIRE.

FROM THE TERMINATION OF THE PROVINCE GOVERNMENT IN 1775.

BY ALBERT STILLMAN BATCHELLOR.



HE history of New Hampshire for the purposes of an examination of its judicial progress between the settlement in 1623 and the termination of royal authority in 1775, may be divided into four periods: the first from 1623 to 1641, when the temporary union with Massachusetts Bay was inaugurated; the second occupying the thirteen years from the establishment of the royal province till 1692, when a definite and permanent judicial system seems to have been provided; the fourth, from this date to 1775. The first of these periods is not fruitful of material for judicial history. The settlements were weak and isolated. Their growth was slow, and their local governments and local courts were improvised on simple plans, adapted to the present necessities of the people. The second period was one in which the government and court system of Massachusetts Bay was extended over the New Hampshire towns, a county created for those north of the Merrimack, of either jurisdiction, and the judicial history of the four towns is identical with that of the Bay Colony. The third period embraces a time of great political interest, but one of confusion, unrest, contention, uncertainty, changing systems, changing jurisdictions, arbitrary methods in the courts and the administration of law and revolution. Records are inaccessible, and the results of an examination of the judicial history of these years are indefinite and unsatisfactory. The fragments from which it is gathered are accessible in the records of several states and to some extent in legal monographs and general histories. The fourth period is one of settled methods, continuous courts and conditions not strikingly progressive. It is not specially attractive to the general student and yields little of interest to the specialist.*

THE REVOLUTIONARY PERIOD.—New Hampshire ceased to be a royal province in the summer of 1775. There was less of change manifested in the constitution of the courts and the administration of the law than in the other departments of govern-

*Among the important authorities upon the judicial history of the colony and province are the N. H. Province and State Papers, Vols. 1-7, 11, 12, 13, 17, 18, 19, 23, 24, 25, 26, 27, 28, 29; Belknap's Hist. N. H.; J. M. Shirley, *Early Jurisprudence of N. H.*, Vol. 1. Proc. N. H. Hist. Soc., p. 232; Judicial Hist. of N. H., 3 G. & C. Bar Ass. 53 (reprint); Washburn's Judicial Hist. Mass., 1840; *Copp v. Henniker*, 55 N. H., 179; *Conn. River Lumber Co. v. Olcott Fall Co.*, 65 N. H. 291, especially the opinions of the court and the arguments of J. M. Shirley, Jeremiah Smith and Edgar Aldrich. As to the order of succession of judges see Morrison's N. H. Digest, last edition, and for biographical notices Bell's History of the Bench and Bar of New Hampshire.

ment. In fact, there was no important revolutionary legislation relating to the judicial system and the personnel of the courts was less noticeably affected in the progress of events at this time than might have been expected. The Plan of Government adopted by the representatives of the people January 5, 1776, provided "That all Public Offices for the said Colony, and, each County for the Current Year, be appointed by the Council Assembly, except the Several Clerks of the Executive Courts, who shall be appointed by the Justices of the respective Courts."* The Council or Senate authorized by this "Plan of Government," was chosen by the delegates the next day, January 6th, and on the 10th of the same month it was voted that "Hon. Meshech Weare, Esq^r be Chief Justice of the Superior Court of Judicature for this Colony, That Matthew Thornton Esq^r be the Second Justice, Leverett Hubbard Esq^r Third Justice and Elisha Pain Esq^r Fourth Justice of said Court." By a vote of January 26th, John Wentworth appears as the fourth justice of the Superior Court, instead of Elisha Pain. Presumably this change resulted from Mr. Payne's undisguised opposition to the new form of government.† This organization of the court continued till 1782. The Assembly exercised the power of filling public offices not only for the "current year," but for every succeeding year until 1784. The chief justice held also the offices of president of the council and president of the Committee of Safety. There is nothing preserved from contemporary expressions of opinion to indicate that President Weare's incumbency of these offices was then regarded as objectionable, however incompatible they may now appear to the modern view. The Constitution proposed to the people by a convention in 1779 contained this article:

"26th. No member of the General Court shall be Judge of the Superior Court, or Inferior Court, Judge or Register of Probate, or Sheriff of any County, or Treasurer of the State, or Attorney-General, or Delegate at the Continental Congress."

All the articles of this Constitution were rejected, and upon traditional authority by a very decisive negative vote.

The records of the courts demonstrate that litigated questions were held very much in abeyance, and the judicial duties of the chief justice absorbed very little of the time and attention which the administration of civil and military affairs demanded of the president of the council and Committee of Safety, and president of the Court of Last Resort. President Weare ‡ will always stand in history more conspicuously as the war-governor than as the chief justice. Yet his mind was eminently judicial; he had a calmness of temper, a practical wisdom, an experience on the bench in the provincial period, and above all an unimpeachable integrity that gave assurance of a career of great usefulness as a chief justice, had circumstances given him the opportunities of administration of the office under those conditions of peace and material prosperity which in later periods have brought great causes and great questions before the courts of last resort.

President Weare's administration as chief magistrate of the state was seriously embarrassed from its commencement till the final determination of the Vermont line on Connecticut river was affected in 1782, by the disaffection of a large number of towns in the western side of the state. This was a subject which required the most skillful diplomacy, and at times it commanded the attention of the best minds in the

* 8 Prov. and State Papers, 3.

† Biography by W. H. Cotton, I. Grafton Coös (N. H.), Bar Ass. Proceedings, 497: 20 State Papers, 574, 848; I. Wentworth Genealogy, 371-389.

‡ Monograph by Ezra S. Stearns, Pamphlet, 1894.

public service. A conspicuous feature in the success of President Weare was his wisdom in the selection of coadjutors in all his undertakings. Another most valuable faculty possessed by him in an eminent degree was that of managing men of talent in such manner that their personal jealousies, ambitions and idiosyncracies were not permitted to wreck the common cause.

In the public service of the province Samuel Livermore had been hardly less conspicuous than Meshech Weare. As the crisis approached, it was observed that Mr. Livermore, who held the office of attorney-general, took no positive course to identify himself as Royalist or Revolutionist, and Mr. Weare, who had pursued a judicial career from 1748 to 1775 as an associate justice of the Superior Court, was regarded as a conservative. At the same time, the great mass of the people, though determined in their position, were disposed to make haste slowly in the movement which was destined to result in a permanent separation from the mother country. Under compulsion of the logic of events, Governor John Wentworth and a faithful few of his adherents abandoned the province. Meshech Weare took his stand, unostentatiously but unequivocally, with the people, and was recognized by common consent as the natural leader in the cause, which had been espoused in the sober and deliberate judgment of the state, and which was destined to be successful without the abuses of retaliation or excesses in victory.

Samuel Livermore was not disposed to expatriate himself or to become prominent in the first movement for independence. His country estate was almost on the frontier, in the northernmost county of the state. The king's attorney-general was now a country land-proprietor, tilling his own fields and building his own mills. Here he remained in retirement and apparently unconcerned as to the issues over which generals, statesmen, and armies were contending.

Early in 1778, however, Mr. Livermore was made attorney-general by the two houses of the legislature, in place of Wyseman Clagett, who had held the office the preceding two years. Mr. Livermore continued as attorney-general till near the end of the year 1781. In 1779, he appeared also as a representative in the house from Holderness, and in November of the same year he was appointed a delegate to support the claims of this state in the Continental Congress to the New Hampshire Grants, west of the Connecticut river. The next legislative years, 1779-80, he was again a representative for Holderness, and was appointed on the first day of January, 1780, to the Continental Congress, with special reference to the Vermont controversy, but with full powers and privileges otherwise as a delegate. He was re-elected for 1781, and for 1782. He was chosen chief justice June 21, 1782, to succeed Meshech Weare. At this time several changes occurred in the membership of the court. Judge Wentworth died in 1781. Woodbury Langdon was made judge on the 22nd, and Matthew Thornton and Leverett Hubbard were re-elected on the 24th of June. Judge Thornton* declined the election, and, November 14th, Josiah Bartlett was chosen, Judge Langdon resigned about the first of the year 1783, and Gen. William Whipple was elected to the vacancy. The considerations which induced Samuel Livermore to emerge from his retirement at a critical point in the fortunes of the war for independence, and devote his abilities as a lawyer, statesman and man of affairs unreservedly to the public service are not authoritatively known. President Weare has been given the credit for accomplishing the identification of Mr. Livermore with the public affairs of the state, by making way, on the one side for honorable recognition of Mr. Livermore in official station, and, on the other, by personal appeals to the indi-

* Address of Chas. H. Burns, Dedication of Thornton Monument, Sept. 29, 1892.

vidual, which made the path of duty manifest and the summons imperative. It may be regarded as altogether probable that President Weare was again influential in the selection of a successor for himself in the office of chief justice in 1782, and that the advancement of Mr. Livermore to this position was another of the beneficent results of wisely-directed and far-reaching administrative policy.*

The war was now drawing to a close and independence was well assured. The form of government which had served the state as a temporary expedient, and under which the courts had been continued with a reasonable degree of popular approbation was about to be discarded.

A more elaborate constitution was constructed and adopted in the two years succeeding the appointment of Mr. Livermore as chief justice.

The years intervening between 1775 and 1784 had not been a period of judicial activity or development in this state. The judges had been men of action and of affairs and not specialists in jurisprudence, reformers of methods of administering the law or creators of improved judicial systems. It is in the domain of the statesmanship of that time that Weare, Livermore, Thornton, Bartlett, Whipple and Langdon made their names historic, and that they were then judges of the highest court of the state, important as the fact may be in individual biography, is of secondary moment in the narrative of superior events.†

As the strain of war was relaxed the people began to give more concern to those questions of titles, boundaries and general property, which always become urgent after a period of civil commotion. There were important issues over public and private rights in estates forfeited by royalist refugees and over townships and other extensive tracts of land claimed under conflicting grants from the royal governors. Debts had multiplied beyond computation and a depreciated currency had made havoc of values. A rigorous code for the enforcement of judgments by levies on persons and property with exemptions and exceptions too trifling and inconsiderable to require specification was available to the creditor class, and the courts were made unwilling instruments for harrassing the poor and punishing the unfortunate.‡ The administration of the law was in danger of incurring opprobrium which belonged to the hard system which the wisdom and beneficence of a later generation slowly and by long delayed amendment at last made tolerable. It was happily the system of trial by jury and the great good sense and practical philanthropy of the judges that gave promise of a preservation of the fabric of government and a deliverance from anarchy in those days of material depression and political uncertainty. Of the judges of the Superior Court Hubbard alone was known distinctively as a technical lawyer. Bartlett was a practicing physician and Whipple a merchant.

Both of these men had been close to the people and knew well the nether side of their affairs. It was a long time since Livermore, the chief justice, had been king's counsel, and meantime he had been dwelling among the pioneers, subduing the wilderness and grinding at the mill with his own hand. The rules of law as given

* Biography of Samuel Livermore, by C. R. Corning, 1 G. & C. Bar Ass., Proc. 365; XXIV. 11, 21 N. H. State Papers, 816.

† SUCCESSION OF JUDGES, 1776-1784.—1776-1781, Chief Justice, Meshech Weare;¹ Puisne Justices, Matthew Thornton,² Leverett Hubbard,¹ John Wentworth.¹ 1782, Chief Justice, Samuel Livermore;¹ Puisne Justices, Josiah Bartlett,² Leverett Hubbard,¹ Woodbury Langdon.⁴ 1783, Chief Justice, Samuel Livermore;¹ Puisne Justices, Josiah Bartlett,² Leverett Hubbard,¹ William Whipple.⁴

‡ *Practice*, Address by J. M. Shirley, *Granite Monthly*, New Hampshire Magazine.

¹ Educated to the law.

² Educated for the ministry.

³ Physicians.

⁴ Merchants.

to the juries by this court were few and simple, and rights were determined and controversies between man and man composed by the verdict of their peers without obnoxious obstructions from the bench. From these considerations it may be discerned how neither the hardships of the laws which were administered nor the oppressions of an aggressive creditor class, which constantly besieged courts of justice, could serve to diminish the esteem and confidence which the people entertained for their judges. Livermore was made representative in Congress and United States' senator, and Bartlett was chosen president of the state by an almost unanimous vote and declined an election to the Senate which was tendered with singular unanimity. Whipple died in high esteem while holding office, and Hubbard, the lawyer, alone failed of preferment.

In the latter part of this period a convention was occupied in formulating a new constitution. This was not accomplished to the approval of the people until seven sessions of the convention had been held between the 5th day of June, 1781, and the 31st day of October, 1783. Two constitutions proposed by the convention were rejected by the people, and the third was ratified in 1783, and took effect in 1784.

It will not be pertinent to the purpose of this review of the development of the courts to consider the Constitution of 1784 further than as it affected the judiciary as a department of government. A distinct advance was made by the terms of this instrument towards the establishment of the independence and integrity of the courts by provisions for a permanent tenure, by the requirement of an honorable salary and the establishment of distinct lines of demarkation between the three powers of government.

The argument which accompanied the several drafts submitted to the consideration of the people is significant and worthy of thoughtful perusal in its entirety, but particularly the portions which advert to provisions relating to the judiciary and which reflect something of the experience of the state with the mischiefs attending the existing system or absence of system and absence of certainty in the organic law.

It is said in the address :

"When the people of this state first thought proper to assume government for themselves, it was a time of difficulty and peril. That form which was the simplest, and first presented itself to their view, in the perturbation of spirits that then prevailed, they adopted without that thorough discussion and calm deliberation which so important an object required. It was not intended to be lasting. It was expressly declared by themselves to be temporary.

"In this imperfect form, the Legislative and Executive powers of government were vested in one body, to wit: In a General Court, consisting of two branches, a House of Representatives and a Council. Nor was any provision made therein for the exercise of the executive power in the recess of the General Assembly.

"So great a defect was soon discovered and felt; and the Court, thus established by the Constitution, without any new authority derived from the people, or without even consulting them, patched this flaw by delegating to a number of persons, whom they termed the 'Committee of Safety,' the executive power to be by them exercised in the recess of the General Assembly; which mode has been since continued, and the Committee have made an important part of the government.

"A further defect, among innumerable others, is the want of an Exclusion Bill. In consequence of which, many of the individuals, who compose the afore-mentioned body, assist in enacting laws, in explaining and applying them, and in carrying them into execution.*

*The three powers of government, before hinted at, to wit: The Legislative, or power of making laws; the Judicial, or power of expounding and applying them to each particular case;

and the Executive, to carry them into effect, and give the political machine life and motion. These three important powers we have thought proper to keep as separate and distinct as possible, for the following reasons: If they should be all united, the government would then be a complete system of tyranny. The same party would be legislator, accuser, judge, and executioner. If the Legislative and Judicial powers should be united, the maker of the law would be the interpreter thereof, and might make it speak what language best pleased him, to the total abolition of justice." *

"The judicial department falls next under our consideration. This comprehends the judges of the several courts and the justices of the peace throughout the state. These are all appointed by the governor, with the advice of the council, but not removable by him in case of malconduct, but by the legislature, and in no case without the intervention of that body.

"The judges all hold their offices during good behavior; the only proper term, especially for the judges of the Supreme Court of Judicature, as they ought, in a peculiar manner, to feel themselves independent and free, and as none would be at the pains to qualify themselves for such important places, if they were liable to be removed at pleasure. As another inducement for persons so to qualify themselves, as an encouragement to vigilance and an antidote to bribery and corruption, adequate, honorable and permanent salaries to the judges of the Supreme Court in a particular manner, we have made essential in the Constitution, and do now most strongly recommend.

"The alteration of justices' commissions, from life to five years, is to guard against age, incapacity, and too large a number; to secure the appointment of the best; and to prevent too frequent addresses and impeachments. You will judge of the propriety and expediency of this innovation, and either give it your sanction or not, as appears to you best.

"The reasons for the Exclusion Bill are too obvious to be pointed out. Sad experience has evinced the necessity of such a provision. Besides the interference of several offices held by the same person, in point of time, which we have often seen, and the difficulty of one man's giving his attention to many matters sufficiently to understand them all, which we have too often felt; there is still a stronger reason, which is the difficulty of a man's preserving his integrity in discharging the duties of each unstained—at least by suspicion." †

It is not probable that a more authoritative presentation of the reasoning and the teachings of experience which moved the convention in the construction of a system for the judiciary, than the address from which the foregoing extracts have been taken, can be found in contemporary literature. The argument was effective with the people and a foundation firmly laid for the establishment and maintenance of an honorable, independent and permanent judiciary, protected by constitutional safeguards.

THE PERIOD FROM 1784 TO 1793.—It should be kept in mind that the Constitution of 1784 has been continued to the present day with only such modifications by amendments as have emanated from four conventions, viz.: that of 1791-2, that of 1850-51, that of 1876 and that of 1889. An error which persisted in various authorities on the constitutional history of the state, that a new constitution was submitted from the convention of 1791-2 and adopted by the people, has been conclusively corrected in recent years.‡ Amendments only were submitted and adopted in 1791-2, and it was not a new Constitution that took effect in 1793. The present Constitution, therefore bears date as established in 1783 and as taking effect in 1784. Its principal provisions for the establishment and regulation of a judiciary are not altered in any essential degree by the amendments of 1791-2, 1850-51, 1876 and 1889. It is declared by Article 35 of the Bill of Rights that,—

* IX. State Papers, 847.

† IX. State Papers, 850.

‡ *State vs. Sanders*, opinion by Judge Allen, 66 N. H., 39, 72; *State vs. Griffin*, opinion by Judge Carpenter; 22 State Papers, Preface, iv.

"It is essential to the rights of every individual, his life, liberty, property and character, that there be an impartial interpretation of the laws, and administration of justice. It is the right of every citizen to be tried by judges as impartial as the lot of humanity will admit. It is therefore not only the best policy, but for the security of the rights of the people, that the judges of the supreme (or superior) judicial court should hold their offices so long as they behave well; and that they should have honorable salaries, ascertained and established by standing laws."

Article 4 of the second part confers authority on the legislature to erect and constitute all judicatories and courts of record or other courts.

By Article 45 it is provided that all judicial officers shall be nominated and appointed by the governor and council, the governor and council having a negative on each other both in nominations and appointments.

By Article 72, all judicial officers hold their offices during good behavior.

By Article 73, each branch of the legislature, as well as the governor and council, have authority to require the opinions of the justices of the Superior Court upon important questions of law, and upon solemn occasions.

By Article 77, a limit of service is fixed for judges at seventy years of age.

By other constitutional provisions, the judges are excluded from holding certain civil and military offices, as being incompatible with the proper separation of the three branches of government, and are forbidden to be of counsel in the courts of the state in any causes which may come before them as judges. Clerks of courts (excepting registers of probate) are appointed by the courts, to hold office during the pleasure of the appointing power.

By Article 58, it was specifically provided that permanent and honorable salaries should be established by law for the justices of the Superior Court.

The power of pardon after conviction (Art. 51) was vested in the governor and council, and jurisdiction to try impeachments of state officers instituted by the House of Representatives, was conferred on the Senate, the chief justice being required to preside in case of the impeachment of the governor (Arts. 37, 38, 39).

Meshech Weare, the venerable judge of the province, and chief executive of the Revolutionary period, was chosen by the people as their first president under this Constitution. The new government was organized in June, 1784. The president and his council speedily addressed themselves to a comprehensive re-organization of the offices, civil, judicial and military.

The Superior Court, as constituted December 25, 1784, was as follows: Samuel Livermore, chief justice; Josiah Bartlett, William Whipple, John Dudley, puisne justices; John Sullivan, attorney-general.

By the tests of varied experience in public affairs and unflinching devotion to the cause of independence, these appointees were deserving of the highest recognition in the bestowal of the honors of official station. By the modern tests of fitness for places on the bench of the highest court, different conclusions from those of President Weare and his council might be reached.

Leverett Hubbard was succeeded by John Dudley. Judge Hubbard's letter on the subject is of interest in connection with the events of the time.* From this date the history of the court passes through a period of agitation. Conditions before alluded to in the relations of the debtor and creditor class developed into open defiance of the courts and overt acts of rebellion against the state authority. At Keene, the courage and tact of the attorney-general had previously (1782) saved the court from insult and humiliation, and at Exeter, in 1787, the president was compelled to

*XVIII., N. H. State Papers, 763; 3 G. & C. Bar Ass., 73.

resort to military force to quell the popular uprising. This has been well termed the "critical period in American history."

Admiralty jurisdiction was exercised at this time by a Court Maritime, which had survived from the provincial establishment, Joshua Brackett, a Portsmouth physician, being its judge, and Jonathan M. Sewall, the poet-lawyer, clerk. It is presumed that this court was the successor of the Province Court of Admiralty.

General Whipple, having died in 1785, was, as before stated, succeeded by Woodbury Langdon, whose subsequent career as a judge constitutes one of the most interesting and instructive chapters of the history of the courts. The politics of the state were now gradually diverted from domestic to inter-state concerns. There was no national judiciary for the Confederacy, and the future for the administration of the law in cases in which the rights and interests of residents and citizens of different states might be involved was a serious and ominous problem. The result of this great movement for nationality, which took organic form in the Constitution of the United States, was important and far-reaching in its relations to the judiciary, both state and federal. The state courts were relieved of a part of their jurisdiction by the establishment of the federal judiciary in 1789. General Sullivan, then president of the state, was made district judge, and continued in the exercise of both offices during the remainder of his presidential term. The Court Maritime was, of course, superseded by the United States District Court.*

The inferior courts do not invite special attention in this connection, since they were constituted on the same system and exercised the same jurisdiction as for a long previous period. The General Court, however, assumed and employed prerogatives, notwithstanding the unmistakable spirit of the new Constitution, which attracted the serious attention of the best minds in the state and stimulated them to agitation and exertion for signal reforms in the prevailing practices.

The disposition of the legislature to grant new trials and overturn judgments of the Superior Court was particularly distasteful to all who valued the principle of the independence of the judiciary from interference by the co-ordinate branches of government. Incidental to this mis-direction of legislative functions was a system of legislative practice before committees, in which members acted as paid counsel of parties to pending causes.

The collision which came about between the Superior Court and the General Court, resulting in the attempted impeachment of Judge Woodbury Langdon, emphasized the popular discussion and opinion as to prevailing tendencies in both of these departments. Judge Langdon was charged with neglecting his judicial functions in the interest of his private business.† His reply to the legislative presentment admitted the fact of his delinquency in attending certain terms of his court, and in turn accused the legislature of having improperly interfered with the business of the Superior Court by passing laws to nullify their judgments, and neglecting and refusing to grant the judges those permanent and honorable salaries which the Constitution required them to do.

This controversy was long protracted, but the impeachment eventually failed, and Judge Langdon relieved the strained situation by accepting a fiscal office under the newly-organized federal government.

The rise of independent religious denominations and the extension of a spirit of revolt against religious forms and doctrines at this time had engendered a great

* Federal Court, Judges and Officers in N. H., "Manual of the General Court," 1893, 135.

† XXI., N. H. State Papers, 813; Record of Proceedings for Impeachment, XXII., *Id.* 749.

deal of controversy. It had been a long-established requirement of law that the settled ministry of the standing order should be supported by ordinary methods of taxation. The sentiment that was abroad generated resistance to this employment of taxation. The courts were called frequently to adjudicate these questions. It was not an easy matter, however, for those who protested their ministerial taxes to escape from their imposition. Many of the judges, not only those of clerical antecedents, but others, both lawyers and laymen, were predisposed in favor of the existing order of church maintenance, and the juries were of similar disposition and prejudice. This was a prolific cause of litigation down to the passage of the toleration act, when a final appeal had been taken from the courts to political arbitrament.*

Two remarkable men came upon the scene of public action at this time, and both developed controlling ability and aptitude in law reform, constitutional progress and general statesmanship. These were William Plumer and Jeremiah Smith. They were foremost in urging and securing the call for a convention to revise the Constitution, and very influential in formulating the amendments which were submitted to the people. Indeed, so patent was this influence that the body was called "Plumer's Convention." Reverting to the "*Life of Plumer*," edited by his son, a clear exposition of the conditions and necessities for reform in the judicial system is discovered :

"In organizing anew the judiciary department, the plan supported by him had for its object, by lessening the number of the courts and increasing their power, to secure a speedy and less expensive administration of justice. The chances of protracted litigation, as the law then stood, were very great, and the consequent duration of law suits were almost interminable. A suit, commenced before a Justice of the Peace, might be carried to the General Sessions, thence to the Common Pleas, thence to the Superior Court, and thence to the Legislature, to be by that body sent back to the Superior Court for final decision, with the further chance for a new trial on a writ of review. Add to this that the verdict might be repeatedly set aside by the court, and that the disagreement of the jury often prevented any verdict being rendered; and it will readily be believed that suitors seldom got what the bill of rights promised them: 'Justice freely, without being obliged to purchase it; completely, without denial, and promptly, without delay.' The remedy for these evils, as finally proposed by the convention, was to empower the Legislature to abolish the Courts of Common Pleas and General Sessions, and to extend the Jurisdiction of Justices of the Peace to sums not exceeding four pounds. It was further proposed that no person should have a writ of review after the case had been decided against him twice by jury, but that the court might, in other cases, grant a new trial where, in their opinions, justice had not been done at the former trials. Provision was also made for establishing equity jurisdiction, where an adequate remedy did not exist at common law. It is believed that this system would produce a more speedy despatch of business, and greatly reduce the cost of litigation. But its effect, in the first instance, would have been to throw twenty judges out of office, and to destroy, in a hundred other influential men, the hope of obtaining judgeships, to which, under the old system, they might have aspired. Those lawyers, too, who, in organizing the courts, looked chiefly to their own interests, were not likely to favor a plan whose professed object was to diminish litigation. The only part of the scheme which met with no opposition, was that which extended the jurisdiction of justices of the peace. That rather numerous class of men found both their respectability and their emoluments increased by the proposed change, and they were not slow to appreciate its merits. The other proposed amendments were all rejected by the people. My father had been deeply impressed with the evils of the system which he thus sought to reform—the litigious spirit which it engendered among the people, its expense, its injustice, and its delays—the law's delays—which from the time of Shakespeare, not to speak of the complaints of earlier days, had been the bane and the opprobrium of English jurisprudence, and which had been repeated here with such fatal facility of imitation."—*Life of Plumer*, 120.

* Barstow, Hist. of N. H., Ch. XII.; Whiton, Hist. of N. H., 190; *Life of Dan. Young*; Ch. XII., Cases in Smith's Reports; *Life of Plumer*, 185.

The attempt to remedy existing mischiefs in the judicial system took form in eight articles, under the general title of *judicial power*, in the draft of amendments first submitted to the people.* These were nearly all rejected, and the ones adopted were regarded as unimportant, and standing alone, as accomplishing little for judicial reform.

In the second submission the same propositions differently presented are articles 54 to 64 of the proposed amendments.† They again suffered substantially the same fate before the people and politicians, Articles 54, 55, 56 and 57 being rejected.‡ The five rejected articles were as follows :

"JUDICIARY POWER.

54. "It shall be the duty of the General Court to make a reform in the Judiciary system, that justice may be administered in a more cheap and expeditious manner than is now practised ; and that no party shall have a review after the cause has been determined against him twice by Jury.

55. "The General Court are hereby empowered to make alterations in the power and jurisdiction of the courts of common pleas and General Sessions of the peace respectively ; or if they shall judge it necessary for the public good, to abolish those courts, or either of them, and invest such other courts as they may establish with the jurisdiction and powers now vested in the courts of common pleas and Courts of General Sessions of the peace, as the General Court may, from time to time, judge expedient for the due administration of law and justice.

56. "And it shall be the duty of the General Court to vest in such court or courts of law as to them may appear expedient, the power of granting new trials, or a trial after judgment, either upon verdict of Jury, default, non-suit, or complaint of affirmation of judgment, in all cases where substantial justice has not been done (except as before excepted) in such manner and under such restrictions and regulations as to the General Court may appear for the public good. PROVIDED, application be made for such reviews or trial within one year from the rendition of judgment.

57. "For the more effectually preserving the proper separation of the three great powers of Government agreeably to the 37th article in the bill of rights, the power of hearing and deciding in causes of equity shall be vested either in some Judicial Court or Courts, or in some court to be established especially for that purpose: PROVIDED, no power shall be granted to any such courts incompatible with the Bill of rights and Constitution ; and the powers of said courts shall be limited and defined by express laws, and no suit in equity shall be sustained where clear and adequate remedy may be had at law."—X *State Papers*, 123.

Among the important objects in view, as the proposed amendments clearly indicate, were the establishment of Courts of Equity by unequivocal constitutional authority ; the simplification of the methods of court procedure, the reduction of the number of courts and court officials, and the definitive limitation of the right of viewing adjudicated actions, and granting new trials, and the transfer of that power from the legislative to the judicial department of government.

The failure of the amendments which embodied these principles was not accepted afterwards as by any means excluding the propositions embodied therein as subjects of subsequent legislative consideration and enactment. The old Constitution was not construed as forbidding these measures. It was only their positive enactment in the body of the organic law which had not been compassed. All, or practically all, of the principles involved in this agitation have since been adopted, either by legislation or by judicial construction and decision. The transformation of systems and methods to conformity with these principles, is an essential feature of the history of the development of the courts in the subsequent period.

X * *State Papers*, 69.

X † *State Papers*, 123.

X ‡ *State Papers*, 142.

FROM THE AMENDMENTS OF 1792 TO THE ESTABLISHMENT OF THE NEW JUDICIAL SYSTEM OF 1813.—The courts in the ensuing thirty years were subjected to transitions that were important and varied. The influences which moved to these results were somewhat complex. Political causes, always active, contributed. The progress manifested in a better and broader appreciation of the necessities of good government on the part of the people generally, affected the legislation touching the compensation of the judges, and the elevation of standards in this branch of the public service. More than all else, however, was the potentiality of the leaders of the New Hampshire bar, who attained between the time of the chief justiceship of Josiah Bartlett, the physician, and that of William M. Richardson, the lawyer, an eminence which is still historic, even in comparison with the contemporary legal lights of those commonwealths which were regarded as the great states. In the earlier part of this period, Samuel Livermore, John Sullivan, John Pickering, John Prentice, John S. Sherburne, William K. Atkinson, Jonathan M. Sewall, and Benjamin West were conspicuous in legal affairs. Later on, the list contained the names of Jeremiah Smith, William Plumer, Jeremiah Mason, Arthur Livermore, Edward St. Loe Livermore, George Sullivan, Ichabod Bartlett, Levi Woodbury, and Daniel Webster.

Judge Story, who occasionally practiced before our judges, listened, when he came afterwards to reside here in the Circuit Court, with undissembled admiration and delight to what he called "the vast law learning and the prodigious intellectual power of the New Hampshire Bar." Webster, after practicing in the first courts of the Union, told Choate that "he never met anywhere else abler men than some of those who initiated him in the rugged discipline of the New Hampshire Courts." *

These men were all in touch with the political movements and organizations of their day. They realized fully the disparity between the bench and bar in respect to law learning and fitness for the highest judicial functions. At the close of the Revolution the salaries of the judges were \$500. In 1792 the chief justice had \$600. In 1797 it was raised to \$850, and in 1802 to \$1000. In 1804 it was made \$1500, while Judge Smith should hold the office. There was a relative increase in the salaries of the associate judges. These results which were more effectual than anything else in improving and strengthening the Superior Court undoubtedly in a large measure, were the response of the people and the legislature to the intelligent and interested exertions of a strong bar.

The ancient Court of Sessions which had civil and criminal jurisdiction in each county within certain limitations and managed certain fiscal affairs of the county, including the laying of roads, now committed to the county commissioners, was abolished in 1794, and its duties transferred to the Court of Common Pleas. This Court of Sessions should not be confused with a court of similar title created in 1820. Here are seen some of the first fruits of the agitation for a simplification of court machinery and a reduction of the number of judges of various sorts which had greatly multiplied in the previous years.

Another advance for the court was effected by its own efforts at self-assertion. In 1791 it denied a new trial in the case of *McClary v. Gilman*, although the General Court had passed an act "restoring the previously unsuccessful party to his law," according to the current phrase. The act was held unconstitutional. Such a law was again passed in 1817, but the court again held it unconstitutional.† Pickering Chief Justice, Olcott, Dudley and Farrar were the judges who dealt the effective

* "Life of Plumer," 178, 179, 180; "Life of Jeremiah Mason, *passim*."

† Life of Plumer, 170.

tive blow at this long established usage, and made an end of a venerable abuse of legislative power.

Succeeding Doctor Bartlett, the next chief justice, 1790-1795, was John Pickering,* who was a well-read lawyer. "His successors," says Mr. Plumer, "have all been of the same profession, though one of them, Simeon Olcott,† who held the office from 1795 to 1801, was more distinguished for the uprightness of his intentions than for his knowledge of law. "In his office of judge," says his biographer, "he manifested less regard for the letter of the law than for the spirit of equity." This is a mild way of saying what was often true, that he made the law to suit the case.

While such were the chief justices, it may well be imagined that the side judges were not lawyers. John Dudley, of Raymond, a trader and farmer, was judge from 1785 to 1797; Woodbury Langdon, a merchant of Portsmouth, at different periods from 1782 to 1791, and Timothy Farrar, of New Ipswich, originally designed for the pulpit, from 1791 to 1803. Farrar had been appointed to the Common Pleas during the Revolution, on which he procured a copy of Blackstone's commentaries, which he read, he said, "with more avidity than any girl ever read a novel." These judges were men of strong powers of mind, of large acquaintance with business, and superior in talents and information generally to the second-rate lawyers, who, with the salaries then given to the judges, could alone have been induced to take seats on the bench. "There are now," said Judge Smith, writing under date of April, 1796, "two lawyers on the bench, but I think they are by no means the two best of the four. Farrar and Dudley, in my judgment, greatly overmatch them."

"The half-learning of an ill-read lawyer of ordinary capacity was indeed no match for the keen sagacity, long experience and strong common sense of such a judge as Dudley. This extraordinary man, who was for twelve years judge of the Superior Court, had not only no legal education, but little learning of any kind. But he had a discriminating mind, a retentive memory, a patience which no labor could tire, an integrity proof alike against threats and flattery, and a free elocution, rude indeed, and often uncouth, but bold, clear and expressive, with a warmth of honest feeling which it was not easy to resist."‡

"He (Dudley) had been, from 1776 to 1784, during the whole period of the revolution, one of the committee of safety, the most efficient member of that most efficient of governments. Quick to feel and prompt to act, he was a resolute, strong-minded man, intent on doing substantial justice in every case, though often indifferent to the forms and requirements of law. 'You may laugh,' said Theophilus Parsons, who practised for many years in our courts, 'at his law, and ridicule his language; but Dudley is, after all, the best judge I ever knew in New Hampshire.' To have received this praise from Judge Parsons, Dudley must have been, on the whole, not ignorant of law, nor inattentive to its substantial requirements. 'Justice,' said Arthur Livermore, speaking to me of Dudley, before whom he had himself practised, 'was never better administered in New Hampshire, than when the judges knew very little of what we lawyers call law.'"§

At the close of the century the court consisted of Simeon Olcott, chief justice, and Arthur Livermore, both lawyers, with Paine Wingate and Timothy Farrar, whose professional antecedents had been in the ministry. While the court had, as already intimated, asserted its independence in defending its judgments against legislative interference, it was still disposed to cast the largest responsibility for the issues in

* Upon the subject, "Removal of Judges," with particular reference to the case of Judge Pickering, *4 Granville Monthly*, 133, article by Geo. W. Nesmith; Bell's Bench and Bar of N. H., p. 44.

† Biography Hist. of Charlestown, N. H., p. 485.

‡ Life of Plumer, 152.

§ *Id.*, 155; also *Life of Jeremiah Mason*, 1873, by Geo. S. Hillard, *passim*.

trials upon the juries. Issues of law were avoided. No system of reported decisions had been attempted, and the custom of putting each case upon its own merits, as they might strike the jury, prevailed with this court—"each tub," as Judge Samuel Livermore stated the rule, "being allowed to stand on its own bottom." Precedents did not control, and the importance of building up a system of reported case-law for the future guidance of the court was not regarded as of controlling importance.

Politics, working sometimes to the advantage and sometimes to the disadvantage of the courts, were as restless and turbulent as the stormy sea. Mr. Plumer was about to pass, not entirely out of his local practice and his local political activity, but into a somewhat different sphere of influence in a seat in the Senate of the United States, and Jeremiah Smith, having served four terms in Congress and held, by a fitful tenure, the office of United States Circuit Judge, was induced, upon the retirement of Mr. Olcott, to assume the chief-justiceship. This event, occurring in 1802, was the beginning of an epoch in New Hampshire jurisprudence. He was fully cognizant of the difference between the old courts and those which were the ideals of men of his character, experience, learning and high appreciation of the demands of the judicial office. He devoted himself unreservedly to the task of raising the court to a plane of dignity, learning and respectability which would bring it abreast of the progress of jurisprudence in those states in which the eminence and ability of the judiciary were already conspicuous.

The biography of Judge Smith affords some view of the methods and purposes which governed his course on the bench. His biographer says:

"From the time when he entered upon his office in 1802, till he left it in 1809, Judge Smith gave himself to it with his whole heart. He went through nearly the whole circuit of the state twice a year, travelling over roads often so bad, that he could go only on horse-back, and bridges, of which, many years afterwards, he said that he remembered well their condition when he had occasion to pass them; 'and certainly,' he added, 'he must have been destitute of piety, who did not return thanks to Providence, when he found himself and his horse on the other side.' When he came home, worn down by a laborious circuit, he usually refreshed himself for a week or two by reading novels, or any other species of light literature that might be within his reach. The remainder of his vacation was spent in constant application to the severe studies of his profession, reviewing his decisions, examining legal questions on points reserved for the purpose, extending his knowledge to the less frequented parts of the law, enriching his mind with the principles of legal science to be drawn from theological investigations, or an enlarged acquaintance with history, and doing all this with reference to a better system of legal practice and a better administration of justice."*

"A general practice was very soon adopted, for but one Judge to charge the jury in each case. Points of law were ruled, and cases saved for more thorough examination. New trials were granted for errors in matters of law, but when this practice began, the rule was to grant no new trial for any such error where the case was open to review. There was, in the outset, considerable opposition to this correction of errors, but it was sustained."*

"General knowledge is but another name for general ignorance. In order to be of any practical use, knowledge must be particular, minute and exact; and never more so than in the application of legal principles, where so many warring interests and prejudices come in, to turn justice aside from its true ends. Technical rules and forms are the defences which have been thrown, by the wisdom of ages, around the pure abstractions of the law, to guard them from human infirmities, and secure them in their administration from the influence of fear, enmity, compassion, and whatever other momentary impulses might interfere with the straightforward course of justice. These were the views entertained by Judge Smith, and which, in his judicial character, he labored earnestly to practice and enforce; and with such success, that before he left

* *Lije*, 167.

† *Id.*, 173.

the bench there was probably no state in the Union where the law was more strictly administered. Indeed the matter was carried so far, that the New Hampshire practice has become almost proverbial for its severity, and has sometimes been held up as inconsistent with the courtesy that becomes the members of a liberal and highly respectable profession." *

In the spring of 1809, the chief justice was elected governor. It is difficult to view this event as otherwise than a misfortune to the judicial system which his genius had brought into lines of manifest progress and improvement. At the very close of his own administration as governor, Mr. Langdon filled a vacancy in the court by the appointment of Richard Evans, of Portsmouth, a man of a metaphysical cast of mind, but not regarded as a lawyer of judicial qualifications. Gov. Smith made Mr. Livermore chief justice, and after five months of disagreement with his Republican Council, an unsatisfactory compromise resulted in the appointment of Mr. Claggett as associate justice. Party politics were now of that virulent sort which often mark a war period. Gov. Smith failed of re-election in 1810.

THE PERIOD FROM THE JUDICIARY ACT OF 1813 TO THE RE-ORGANIZATION OF THE COURTS IN 1816.—Chief Justice Livermore always displayed singular ability in the conduct of the circuit business and in the management of jury trials. The courts as a whole, however, could not be favorably compared, in its response to the higher demands upon it as a law court or in respect to the spirit of progressiveness which the times required, with its predecessors, the court over which Judge Smith had presided. This consideration had its effect in giving strength to the movement for a radical revision of the court system. The agitation of the question of judicial reform attained vantage ground in the four years succeeding the retirement of Judge Smith in 1809, and public sentiment was favorable to the adoption of a well-considered change of judicial conditions, both in the superior and inferior courts.

In 1813 the Federalists again found themselves in power in all the branches of the state government. "This year," says a recent writer,† "is memorable in the annals of the court. Here is found the first mile-stone, and it has become an epoch between connecting eras. The Superior Court of judicature was not a creation of the Constitution of our state. Having been established" by the acts of 4 William III. and 11 William III., 1692, 1699,‡ "it was handed down from colonial times, and was continued in undisturbed existence until the year 1813. The Constitution of the state only affirmed its existence, and the early legislation was in amendment of an existing state of affairs rather than the creation of a new order of things. At this time occurred the first radical legislation in regard to the courts." In June the Federalists passed an act by which the old courts were abolished and every superior and inferior judge was deprived of office. The act contained valuable reformatory provisions, as for instance a provision for a law term, one allowing jury trials to be conducted by a single judge and the substitution of two circuit courts for the six county courts of common pleas.

The measure, however, was regarded by its opponents as a political coup to rid the judicial branch of obnoxious politicians, including incidentally some incompetent judges. It has served as a vicious precedent which has since been invoked at intervals to the same end. No series of acts has so seriously disturbed that main stay of governmental stability—the independence of the judiciary from legislative control. The abler lawyers of the Federalist party refused to accept positions in the court. The party was not united in ratification of the acts of their governor and

* *Id.*, 175.

† Ezra S. Stearns, *Biography of Arthur Livermore*, 2 *G. & C. Bar Ass. Proc.* 436.

‡ 3 *Prov. Papers*, 183, 218; XIX., *State Papers*, 702.

representatives. The Republicans with one voice proclaimed the unconstitutionality and denounced the revolutionary character of the proceedings which abolished the existing judicial systems. Under party pressure and against his inclination, Judge Smith was persuaded to enter the breach and save the new court. It was at length organized with himself as chief and Arthur Livermore and Caleb Ellis, associates.

Judges Claggett and Evans appeared at the first session of the new court, ignored the legislation by which they had been passed, and attempted to exercise the functions of office. Their conduct was regarded as undignified and farcical. It reacted upon their cause and the new judges by discreet and conservative management obtained endorsement and approval from the conservative element throughout the state. In time the court procedure settled without serious friction into its new courses.

With the return of the Republicans to power in 1816, the rescision of the court legislation of 1813 was one of their first acts. They had never formally acquiesced in the legislation of the Federalists on this subject. In order not to seem to violate the tenets of consistency, they took care to remove by address the judges who held under the old regime in 1813 as well as those who were incumbents by Federalist appointment between that date and 1816. The substance of the reforms in judicial methods which had already been accomplished and approved was undisturbed.

The new superior court consisted of William M. Richardson, as chief, and Samuel Bell and Levi Woodbury, as associates.

FROM 1816 TO THE LEGISLATION OF 1855.—The ability and character of the court was not seriously questioned, even for political purposes, for nearly forty years, and in that period the consistency, perspicuity, and great learning of its reported decisions, gave it credit and authority second to no other in the Union.

Judge Smith had systematically reported his cases in the periods of his administration, and something to the same purpose had been done by other judges. These reports, however, had not been published, and were consequently not available to the bench and bar in succeeding years.

Under the system of 1816 the publication of reported decisions was begun, and has since been maintained uninterruptedly until sixty-six volumes of New Hampshire cases have been produced, and are now in use by the profession. A selection from the decisions of Judge Smith has been published in a recent volume by his son, Professor Jeremiah Smith.

While very important cases, involving the settlement of far-reaching principles, were before the court, conspicuous among which was the Dartmouth College case,* it will be seen that a review of the reported cases discloses a great amount of labor and learning bestowed by the bench and bar in the development of systems of procedure. The severity of the methods of administering the law enforced by the court in the time of Judge Smith, was not much relaxed in later years. This long intermediate period is in marked contrast in these respects with the unscientific looseness and irregularity of the practice in the courts of the time of Weare, Livermore, Bartlett, Olcott, and Pickering on the one side, and the broad and legalized liberality of the later time, in which the influence of Judge Doe and his co-laborers has been so conspicuously effectual in the department of procedure.†

During considerable parts of this period, from 1816 to 1855, the Superior Court was concerned only with its law jurisdiction, the *nisi prius* business being con-

* "The Dartmouth College Causes," by John M. Shirley, 1879; "A New View of the Dartmouth College Case," by Charles Doe, Harvard Law Review; "Status and Tendencies of the Dartmouth Case," by Alfred Russell, 3 G. & C. Bar Ass. Prac., 13.

† Address of David Cross, 1 Southern N. H. Bar Ass., 31.

ducted by circuit courts, sometimes with county organization and sometimes by districts. Changes were frequent, both in the legal constitution and jurisdiction of these courts and their personnel. At times methods were in vogue which called the individual judges of the Superior Court into the conduct of *nisi prius* terms. There is not space in this connection to trace out the intricacies and sinuosities of all this legislation affecting the methods and organization of the lower courts. Chief Judge Richardson held the office until 1838, a term of twenty-one years and eight months.* The principal legislation in this time affecting the highest court was the act of 1832, abolishing the general courts of Common Pleas and creating a local court of Common Pleas in each county. The number of Superior Court justices was increased to four, with the provision that one should hold the terms of Common Pleas, in conjunction with two local judges, in each county. This bill was proposed by Joel Parker, and supported by him in the legislature to enactment. The bill also conferred full chancery powers on the court. This feature was what gave the measure its great importance. So fundamental were the proposed changes that the judiciary committee hesitated about recommending it till it was approved in writing by Judge Richardson. "The greatest and most radical change in the legal practice in the state followed," says Chief Justice Sargent, "but it chanced that at the same time a vacancy occurred upon the bench of the Supreme Court of the state, and in January, 1833, Mr. Parker was appointed by the first Gov. Dinsmore to fill that vacancy, being thus fortunately placed in a position where he could see that the provisions of his bill, and the new principles incorporated by this change into the law and the practice of the state were fully and fairly carried out. He held the place of associate justice for five years, until 1838, when, upon the death of Chief Justice Richardson, he was appointed chief-justice of the state which position he held until June, 1848, when he resigned.

"During his fifteen years upon the bench, Judge Parker, by his learning, industry, and ability, had impressed himself, so to speak, upon the laws and the decisions of his native state in such a way that a history of his labors may justly be said to constitute a part of the history of the jurisprudence of the state. His opinions are characterized by independence, thorough search, and careful study. They are contained in thirteen volumes of the New Hampshire reports beginning with the sixth, and closing with the eighteenth. Of the 1,244 cases reported within that period, 510 were reported by him, making about two-fifths of all the cases, and as large a proportion if reckoned by the page as by number."†

Legislation of 1849 required the Superior Court to consist of one chief justice and four associate justices; and the Common Pleas to consist of the justices of the Superior Court and the judges of the Common Pleas appointed for each county respectively. By the Act of 1851, the number of justices of the superior court was reduced from five, the then existing number, to three, this reduction to be through resignation or otherwise, making vacancies in the natural course.

John James Gilchrist,‡ who succeeded to the chief-justiceship on the resignation of Joel Parker, besides an equipment and aptitude in the discussion of legal issues and the reasoning of opinions in reported cases which distinguish his labors in the development of the case law, was a judge of phenomenal ability in the management of cases on trial by jury. He was a master of the difficult art of the exposition of the law and reviewing the evidence in such a way as to satisfy the parties of his im-

* For a review of the administration of Judge Richardson, see his "Life," by C. H. Bell, 1839.

† Memorials of Deceased Judges, Graduates of Dartmouth College, 90.

‡ Bell's Bench and Bar of N. H., 94.

partiality in statement, and to distinguish the relevant from irrelevant matter in his presentment to the jury so clearly and by such perfect method that they seldom had occasion for mistake in apprehending the issues or difficulty in finding the facts of of the particular case.

Another political upheaval was now approaching. It was a period of political revolution. The anti-slavery agitation had disintegrated political associations and shaken political convictions which had been long and thoroughly grounded in the doctrines of Whigs and Democrats, to an extent of which the politicians had no adequate appreciation.

A new party constituted of various elements, mysteriously organized and unexpectedly successful, came into power in 1854 and 1855, through operations of the secret societies of the so-called American organization. This was more popularly known as Know-Nothingism.

The Supreme Court consisted at this time of Chief Justice Andrew S. Woods, Ira A. Eastman and Samuel D. Bell, associates. "Judge Woods," says Mr. Bingham, his biographer, "held office until the court over which he presided was abolished; not on account of any fault of his in that dignified position, or of his associates, but by reason of one of those wild and indiscriminating political tornadoes that sometimes sweep over the country and upset everything and everybody, regardless of what ought to command respect and of what is really meritorious." * Further comments to the same point are made by Mr. Bingham in his address before the G. and C. Bar. Ass., 1882, "Certain Conditions and Tendencies which Imperil the Integrity and Independence of the Judiciary."

SUPREME JUDICIAL COURT, 1855-1874.—The reconstruction of the judiciary, which was effected at this time, was moved by considerations which related to the establishment of courts of a changed political complexion. The court of last resort, composed of five judges, took the name of Supreme Judicial Court under the act, and a new circuit court was also constituted. This last named tribunal consisted of a chief justice and two associates, Jonathan Kittridge, chief justice, and J. E. Sargent and Henry F. French, associates. This Court of Common Pleas, as it was designated, was abolished by an act which took effect August 1, 1859. A reassignment of the circuit work was made, and the judges of the Supreme Judicial Court assumed the business of the trial terms. Provision was made for an additional judge for the Supreme Court by the same legislation and Judge Sargent received the appointment.

The Supreme Judicial Court was organized in the summer of 1855, with Ira Perley, chief justice, Ira A. Eastman, Samuel D. Bell, George Y. Sawyer and Asa Fowler, associates; a very able court in its individuality and its entirety.† Chief Justice Perley held the office for two different periods, 1855 to 1859 and 1864 to 1869. He was eminent by reason of his extensive and accurate law learning, and remarkable acumen. He was, beneath the surface, kind-hearted and just, but his manner was often eccentric, and on occasion his onslaughts on persons and principles which were obnoxious to him startled the bar and astonished those not familiar with the temperament of the judge. Notwithstanding his peculiarities, he is regarded as one of the great judges of the New Hampshire Courts. From 1859 to 1864 Samuel D. Bell presided over this court. He was distinguished not only for his superior mastery of general law learning, but especially also for his acquirements in the gen-

* Memorials of Deceased Judges, Graduates of Dartmouth College, p. 90.

† Bell's Bench and Bar of N. H.

eral legal and constitutional history of the state. In October, 1869, Henry A. Bellows* succeeded Chief Justice Perley. Judge Bellows was of even temperament, a model of judicial fairness, studious and painstaking in his work, a lawyer almost exclusively by occupation and preference, interested and at times active as a citizen in political affairs, but hardly ever an incumbent of political office, conservative and conciliatory in the affairs of his court, distinguished above his associates and universally acknowledged by them as a master of the art of court consultation. Kindly in manner, patient in hearing, he closed his career with the love and respect of all who had felt his personality in the conduct of cases in court. An innovation on the previous rule of appointment to this court took place in 1870 and 1873, when W. S. Ladd and E. A. Hibbard, both Democrats, were made judges, thus restoring a practice for many years out of use of representation to both political parties. The successor of Judge Bellows was J. E. Sargent, who presided for a brief period, from March, 1873, to August, 1874, when the judiciary act under which this court existed, was abolished by a Democratic legislature and the courts reorganized under a new act which followed the precedents of political warfare in New Hampshire. The Supreme Judicial Court of 1855-1874 had passed through the exciting episodes of the period of the Civil War and reconstruction. It had passed upon grave questions growing out of that conflict, notably the constitutionality of the soldiers' voting bill and the legal tender acts. The important litigation resulting from the development of the great railroad systems had assumed proportions which demanded the most serious consideration of the court, and held the dockets without cessation, attracting to the controversies the most distinguished legal talent of New England.

THE SUPERIOR COURT OF JUDICATURE, 1874-1876.—The judicial system devised by the legislature of 1874 was of peculiar construction. The Superior Court consisted of a chief justice, Edmund L. Cushing, and W. S. Ladd and Isaac W. Smith, associates. The last-named associate was a Republican. The circuit court likewise consisted of a chief justice, W. L. Foster, Republican; and C. W. Stanley and Edward D. Rand, Democrats, associates. It was foreseen that the circuit work could not be performed by three judges and assistance at *nisi prius* would be required of the judges of the Superior Court. The latter were authorized to sit in the trial terms, and members of the circuit court were to act in the law term to make the quorum when the judges of the law court had become disqualified by sitting in the court below. Thus it will be observed that the separation of the business of the court and its apportionment between a law court and a trial court did not proceed further, as a fact, in practice than the title of the act. In reality there was only a nominal difference in the functions of individual judges in either court under this system. In the political cases of *Head vs. Priest* and *Todd vs. Proctor*, which involved titles to seats in the state Senate in 1875, the court became involved in a conflict between the rival political parties. Regarding the cases as within the domain of the executive and legislative departments of the government, the court unanimously refused to interfere, and recognizing the issuing of certificates of election to certain candidates by the governor and council and the subsequent recognition of these acts as valid by the Senate, the judges expressed their opinion that it was immaterial whether they did or did not agree with the action of the Senate and executive respecting their authority and its exercise in the premises; that the acts complained of were accomplished facts beyond the court's jurisdiction; and that their criticism of accomplished acts of a co-ordinate branch of government would be useless, if not impertinent. The next year a political overturn followed.

* Biography by Jeremiah Smith, 1 G. & C. Bar Asso. Prac. 297.

The senatorial cases had been largely in issue in political discussions, mean time, in the legislature, in the public press and on the hustings. The high character and the legal ability of the court were not successfully assailed. The chief justice was advanced in years, but was a leader at the bar, a man of thorough legal acquirements and of spotless private character. Judge Ladd had been a member of the previous court, and his opinions are justly regarded as among the best reasoned productions of the New Hampshire courts. Several have been for a quarter of a century the leading cases on the subjects considered. The result of these events was only a temporary interruption of the judicial career of Judge Smith. The sober second thought of the people speedily asserted itself, and he was restored to a seat on the bench which his industry, integrity and tireless devotion to the requirements of his office, adorned down to the constitutional limitation of his service.

THE SUPREME COURT, 1876-1897.—The judiciary act of 1876 was simple and comprehensive. The functions of law and nisi prius were assigned to a single Court. The judges, individually, were required to hold the trial terms, and collectively to assemble at the capital for the determination of issues of law in banc. In the personal constitution of the court the principle of recognition of both political parties was recognized by the appointing power. Charles Doe, who had been a most influential member of the court from 1859 to 1874, was made chief justice, with William L. Foster, Aaron W. Sawyer, William H. H. Allen, Republicans, and George A. Bingham, and Clinton W. Stanley, Democrats, as associates. In 1877 another member was provided for by amendment of the law, and Lewis W. Clark, a Democrat, appointed to the place. This divided the associate-justiceships equally as to political representation. Judge Doe* presided for twenty years over this court, and died in the service in 1896 at the age of sixty-six. His influence, whether it be considered with reference to its relation to general affairs, the course of legislation, or the development of important schemes and systems of procedure and case law will inevitably be recognized as marking an epoch in the history of our jurisprudence.

This court has had before it various political questions growing out of important election contests and other partisan rivalries. The matter of the election of United States senator in 1881 was an interesting complication. The opinion of the court was invoked by the senate and returned to the effect that it was the duty of the legislature of 1881 to make choice of a senator of the United States. The House refused to be governed by the opinion, following the advice of their committee on the Judiciary. Another question which was of much more serious import to the respective political parties, and involved the control of the state government, arose in 1890, and was brought before the court by petition, designed to control and regulate by a decree of court the action of the clerk in making out roll of membership for the House of Representatives. Here the court disavowed jurisdiction, as had the court in 1875, and with the result, as in the former case, that the pre-existing political control of the machinery of legislative organization was undisturbed. The popular judgment upon the court's action in the premises was, as usual in such cases, a clamorous confusion of vigorous dissent on the one side and equally pronounced approval on the other.

The increase in the volume of wealth, the growing complexity of social and business affairs, the extension of the domain in which corporations exercise their functions and serve the ends of business enterprise, the enlargement of the necessi-

* A recent address before the Southern New Hampshire Bar, presented by David Cross, reviews the progress of law reform in this state. It was not given without the knowledge and endorsement of Judge Doe.

ties and additions to the subjects of taxation, the important litigation resulting from all these sources of conflict of rights and interests, the application and adjustment of new legislation and of constitutional provisions to the changing and advancing conditions of modern progress have made extraordinary demands upon the courts of last resort in this generation. The approbation of those representing these great concerns, and the approval of the people upon a calm and unbiassed view of the history of the Supreme Court in the last two decades, is a deserved encomium upon the judicial department of the government of the state.

The succession in the office of chief justice, by common consent and approval of the bar and the people, passed on the decease of Charles Doe to Alonzo P. Carpenter, the present incumbent, who had been a member of the court since 1881. Any attempt to summarize the results of his labors on the bench, or to specify the ample and conspicuous qualifications which he brought to this great office, would at this time necessarily be incomplete and inadequate.

This Court has dealt successfully with the gravest questions. The past twenty years have been prolific in issues demanding the most perfect judicial qualities, courage, discretion, learning and statesmanship. The state is honored by the patient, honorable, intelligent and judicial mastery of all these occasions, which prove the integrity of free institutions and vindicate a government of the people.

SUPREME COURT JUDGES, 1784-1813.

Appointment.	Years Service.	Appointment.	Years Service.
Samuel Livermore.....June, 1782	7½	Daniel Newcomb.....April, 1796	2
Josiah Bartlett.....Nov., 1782	7½	Edward St. Loe Livermore.....Feb., 1797	2
William Whipple.....June, 1783	2	Payne Wingate.....April, 1798	10¼
John Dudley.....Dec., 1784	12	Arthur Livermore.....Dec., 1798	14¾
Woodbury Langdon.....Feb., 1786	5	Jeremiah Smith.....May, 1802	7
Simeon Olcott.....Jan., 1790	12	William K. Atkinson.....Feb., 1803	2
John Pickering.....July, 1790	5	Richard Evans.....June, 1809	4
Timothy Farrar.....March, 1791	12	Jonathan Steele.....Feb., 1810	2
Ebenezer Thompson.....April, 1795	1	Clifton Claggett.....Aug., 1812	1

SUPREME COURT OF JUDICATURE, 1816-1855.

Appointment.	Years Service.	Appointment.	Years Service.
Wm. M. Richardson.....July, 1816	21¾	Leonard Wilcox.....June, 1838	2
Samuel Bell....." " "	3	John J. Gilchrist.....March, 1840	12
Levi Woodbury.....Dec., " "	6½	Andrew S. Woods.....Oct., 1840	14½
Samuel Green.....June, 1819	20¾	Ira A. Eastman.....Aug., 1849	6
John Harris.....Oct., 1823	9	Samuel D. Bell....." " "	6
Joel Parker.....1833	15½	Ira Perley.....June, 1850	2¼
N. G. Upham.....Jan., " "	10½		

SUPREME JUDICIAL COURT JUDGES, 1855-1874.

Appointment.	Years Service.	Appointment.	Years Service.
Ira Perley.....July, 1855	4	Geo. W. Nesmith.....Dec., 1859	11
Ira A. Eastman....." " "	4½	W. H. Bartlett.....Feb., 1861	6¾
Asa Fowler....." " "	5½	Ira Perley.....Aug., 1864	5
Geo. Y. Sawyer....." " "	4¾	Jeremiah Smith.....Oct., 1867	6¼
Samuel D. Bell....." " "	9	Wm. L. Foster....." " "	4¾
J. E. Sargent....." 1859	15	Wm. S. Ladd....." 1870	3¾
H. A. Bellows.....Sept., 1859	13½	Ellery A. Hibbard.....March, 1873	1½
Charles Doe....." " "	15	Isaac W. Smith.....Feb., 1874	½



*Yours truly,
Ada Fowler.*

SUPREME JUDICIAL COURT JUDGES, 1876-1897.

	Appointment.	Years Service.		Appointment.	Years Service.
Charles Doe	July, 1876	20	Isaac N. Blodgett.	Nov., 1880	16½
C. W. Stanley.....	" "	8½	Alonzo P. Carpenter.....	July, 1881	16
Wm. L. Foster.....	" "	5	Geo. A. Bingham.....	Dec., 1884	6¼
A. W. Sawyer.....	" "	1	Wm. M. Chase.....	March, 1891	6
Geo. A. Bingham.....	" "	4	Robert M. Wallace.....	April, 1893	4
W. H. H. Allen.....	" "	17	Frank N. Parsons.....	May, 1895	2
Isaac W. Smith.....	" 1877	20	Robert N. Pike.....	April, 1896	1
Lewis W. Clark.....	Aug., 1877	20			

 ASA FOWLER.

A SA FOWLER, the ninth of eleven children of Benjamin and Mehitabel (Ladd) Fowler, was born in Pembroke, N. H., February 23, 1811. His childhood was spent on his father's farm, his means of education after he was seven or eight years of age being limited to eight or nine weeks of winter school, his services after that age in summer being required in farm-work. There were very few books to which he had access, except the Bible and ordinary school-books, and his early reading was confined to these. At the age of fourteen he had a very severe attack of typhoid fever, which left him in such enfeebled condition as to be incapable of severe manual labor. Under these circumstances he was sent to the Blanchard Academy, in his native town, then under the charge of Hon. John Vose, but with no other intention than that he might become qualified to instruct a common district-school. But the opportunity to learn and to read, a desire for a liberal education was awakened, and, by alternately working upon his father's farm in spring and summer, attending the academy in the fall, and teaching school in winter, he succeeded in not only fitting himself for college, but in preparing to enter the sophomore class, having attended school only sixty weeks after he commenced the study of Latin. With so meagre and defective a training, he entered the sophomore class at Dartmouth College at the opening of the fall term of 1830, and although he taught school every winter, was able, nevertheless, to maintain a highly-respectable standing until his graduation in 1833, when, among the parts assigned to the graduating class according to scholarship, an English oration was given him. He was never absent or unprepared at any recitation during his three years' course. In his junior year he was elected a member of the Phi Beta Kappa Society, as being in the first third of his class. He has never sought or received any honorary degree from his Alma Mater. After leaving college he taught the academy at Topsfield, Mass., for a single term in the fall of 1883, thereby raising sufficient funds to liquidate all indebtedness incurred to defray his college expenses over and above what he received from his father's estate. Immediately upon leaving Topsfield, having determined to adopt the legal profession, he entered his name as a student in the office of James Sullivan, Esq., then in practice in Pembroke, occupying the office of the Hon. Boswell Stevens, disabled by a paralytic attack, from which he never recovered. He continued to read books from Mr. Sullivan's library through the following winter.

In March, 1834, he came to Concord, N. H., where he has since resided, and

entered the office of Hon. Charles H. Peaslee, then a rising young lawyer, and continued with him until admitted to the Merrimack County bar, in February, 1837. While a student in General Peaslee's office, he and Hon. Moody Currier, then a teacher in Concord, undertook the editorship, as a matter of amusement and with no hope of pecuniary reward, of a small literary paper, called the *Literary Gazette*. It was published weekly for six months, and then once a fortnight for another six months. After Mr. Currier retired from the editorship, Cyrus P. Bradley, a youth of wonderful precocity, and the author, when a mere boy, of a "Life of Governor Isaac Hill," became associated with Mr. Fowler in the management of the *Gazette*. During a considerable portion of the period in which he pursued the study of the law, Mr. Fowler supported himself by writing for other papers. In June, 1835, he was elected clerk of the New Hampshire Senate, which office he continued to hold by annual election for six successive years, discharging its duties to universal satisfaction. In 1846, he was appointed by the Hon. Levi Woodbury, United States Commissioner for the district of New Hampshire, which office he held at the time of his death. In 1845, he was a member of the New Hampshire House of Representatives, from Concord, and served as chairman of the judiciary committee. Again, in 1847 and 1848, he was one of the representatives of Concord in that body, and served upon the same committee in both years. In 1855, he was nominated by the Independent Democrats, or Free-Soilers, as their candidate for governor, and was frequently assured by prominent Know-Nothings, that if he would join their order he might and would be made their candidate, also, but he was deaf to all such suggestions. After that party came into power, and decided to change the judiciary system of the state, he was engaged to draft the bill for that purpose, which subsequently became a law. Afterwards, at the earnest and repeated solicitation of Governor Metcalf, although at first he absolutely declined to do so, he accepted a position on the bench of the Supreme Court, as associate justice, which he continued to hold, at a great pecuniary sacrifice, from August 1, 1855, to February 1, 1861, when he voluntarily resigned it. During this period of five and a half years he performed his full share of the arduous labors of a judge of our highest judicial tribunal, and gave general satisfaction to the bar and the public. If his opinions at the law terms as reported, are not so labored as those of some of his associates, they are more numerous and not less sound and clear.

Immediately upon his resignation, Judge Fowler was appointed by the governor and council a delegate from New Hampshire to the Peace Congress, which met in Washington in February, 1861, for the purpose of averting, if possible, the threatened secession of the southern states from the Union, and continued its sessions through the entire month. His associate delegates were Hon. Levi Chamberlain, of Keene, and Hon. Amos Tuck, of Exeter. In 1861 he was appointed solicitor for the county of Merrimack, and held the office until he resigned in 1865, upon his being appointed one of the commissioners to revise the statutes of the state. He was associated in that commission with Hon. Samuel D. Bell, of Manchester, and Hon. George V. Sawyer, of Nashua. Upon it he labored diligently and successfully, alone superintending the printing of the commissioners' report and, subsequently, the printing of the "General Statutes" as finally adopted by the Legislature of 1867. He also attended, almost constantly during the whole period of that Legislature, upon the sessions of the Joint Select Committee to whom the report of the commissioners was referred, and greatly aided in procuring the speedy action of that committee and the final adoption of the report of the commissioners as amended by the General Court without protracting the session beyond its usual length. In 1871, and again

in 1872, Judge Fowler was a member of the House of Representatives from Ward Six in Concord, serving on the Judiciary Committee in 1871 and presiding over the deliberations of the House as speaker in 1872 with dignity, impartiality, and complete success.

Judge Fowler was one of the most diligent, laborious and successful lawyers in the State, and the extent of his practice for many years has rarely been exceeded. In September, 1838, after practicing alone for a year and a half, he formed a co-partnership with the late President Pierce, which continued until April, 1845. During this period of six years and a half, their practice was probably as extensive as that of any individual or firm in the state. General Pierce engaged in the trial of causes as an advocate in nearly every county, while Judge Fowler attended chiefly to office business, the preparation of causes for trial and briefs for argument at the law terms of court. Hon. John Y. Mugridge completed his preparatory studies in Judge Fowler's office, and upon his admission to the bar in 1854, Judge Fowler formed a business connection with him for one year, which expired about the time of Judge Fowler's appointment to the bench. Soon after his resignation of the judgeship in 1861, he entered into partnership with Hon. William E. Chandler, which continued until Mr. Chandler's appointment as Solicitor of the Navy in 1864.

During his long residence in Concord Judge Fowler was quite familiar with the forms of legislation, and probably drafted more bills for our legislature than any other man, living or dead. He originated many laws and procured their enactment, when not a member of the legislature. Among those thus originated and procured to be enacted may be mentioned the statute authorizing school districts to unite for the purpose of maintaining high schools, and that authorizing towns to establish and maintain public libraries. He worked zealously, with General Peaslee, to secure the establishment of the asylum for the insane; was very active and persistent in securing the establishment of a public library in Concord and a high school in Union District. He always showed a deep interest in the cause of public education, and for more than twenty successive years served as prudential committee or a member of the Board of Education in Concord. He was always fond of literary pursuits, and has an extensive and well-selected miscellaneous library. For the last three or four years of his life he belonged to a class in English literature, whose weekly meetings, during the winter season, were devoted, with much pleasure and profit, to reading the works and discussing the lives, character and times of English and American authors of reputation. He was, more or less, connected with various moneyed institutions. He was a director of the State Capital Bank from its organization under a state charter until his appointment to the bench, when he resigned. He was a director and president of the First National Bank from its organization until he lost confidence in its cashier, when he disposed of his stock and resigned. He was, for many years, a director of the Manchester and Lawrence Railroad, and for several years its president. In his religious sentiments he was a liberal Unitarian, and took a prominent part in the work of the society in Concord, serving for several years as the superintendent of its Sunday-school, and showing his interest in it by leaving it a legacy of \$1,000 dollars in his will, the interest on which sum to be devoted to the support of liberal preaching. Educated a Democrat, but with strong anti-slavery convictions, he acted with the Democratic party until its devotion to the extension of slavery compelled its abandonment in 1846, and for the next ten years he acted as an Independent Democrat. Upon the formation of the Republican party he joined it, and continued in its ranks until, in 1875, he resumed his connection with the Democracy.

In the spring of 1877, forty years from his admission to the bar, Judge Fowler determined to retire from active practice. A severe illness in the fall of that year confirmed his resolution. Before his full recovery, by the advice of his physician, he decided to visit Europe. Accompanied by his wife, daughter, and third son, he left Boston on the 13th of April, 1878, and returned to New York on the 17th of October, following, having, during his absence, visited the principal points of interest in England, Scotland, Ireland, Italy, Switzerland, Barbary, Austria, Bohemia, Saxony, Prussia, Hanover, Holland, Belgium, Germany, and France. He returned home with renewed strength and energy, and passed the next four years in the full enjoyment of health and happiness in the quiet of his pleasant home in Concord, and his beautiful cottage by the sea, near Rye Beach.

In October, 1882, the great sorrow of his life came upon him in the loss of his dearly beloved wife, after a long and painful illness. He had been peculiarly fortunate in his domestic relations. On the 13th of July, 1837, he married the daughter of Robert and Polly Dole (Cilley) Knox, of Epsom, N. H., and granddaughter of General Joseph Cilley, of the Revolution, Mary Dole Cilley Knox, by whom he had five children—four sons and one daughter—all now living.

In the winter of 1882-83, Judge Fowler had a severe attack of gastric fever at Richmond, Va., while on his way to Florida for his health. After a long convalescence at St. Augustine, Fla., he fully recovered his health and spent the entire winter and spring in the south.

In November, 1883, he again went abroad, spending six delightful months in Nice, Mentone and Italy, returning in May to New Hampshire after a month's sojourn in Paris and London.

Again in November, 1884, he went away from his Concord home and sought the warmer climate of California, spending the greater part of the winter at Monterey. Here he again suffered from attacks of gastritis, and, after a trip down to Santa Barbara, was very ill at San Francisco, and died at San Rafael, Cal., on the 26th of April, A.D. 1885.

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CLINTON WARRINGTON STANLEY.

THE subject of this sketch was the son of Horace C. and Mary Ann (Kimball) Stanley, and was born in Hopkinton, N. H., December 5, 1830. At the age of three years he entered the district school, and at the age of eleven was admitted to the Hopkinton Academy. Both his father, who was a farmer of moderate means, and his mother, a woman of unusual intelligence and force of character, appreciated the value of a good education, and at the age of fourteen he was admitted to Dartmouth College. After his graduation in 1849 he entered as a student the law office of Hon. H. E. Perkins, of Hopkinton, and during the following winter taught school in that town. He remained in the office of Judge Perkins until April, 1851, when he removed to Manchester and continued his studies in the office of Hon. George W. Morrison. He taught school two winter terms in Acton, Mass., while in the office of Mr. Morrison, and was admitted to the bar in Hillsborough County August 12, 1852. After his admission to the bar he returned to Hopkinton and remained at his home until April, 1853, when he removed to Manchester and became associated with Mr. Morrison and John L. Fitch under the firm-name of Morrison, Fitch & Stanley. The business of the firm was an extensive one, including most of the important cases in Hillsborough County, and a considerable practice in other



Clinton N. Stanley

parts of the state. The preparation of cases for trial and a large part of the office work were conducted by Mr. Stanley. No more thorough initiation into the labors of the profession, or preparation for their performance, could be found than those which the business of the firm secured.

In November, 1857, Mr. Fitch, whose health had become impaired, withdrew from the firm and the business continued in the name of Morrison & Stanley. In 1858 Mr. Stanley was appointed by the United States Circuit Court a commissioner of that court, which position he held until he was appointed to the bench. In April, 1860, Lewis W. Clark became a member of the firm, which took the name of Morrison, Stanley & Clark. This firm had the largest docket in the state, and it has been said that, as one of its members, Mr. Stanley carried a heavier burden of professional work than any lawyer in New Hampshire, and one equal to that of any member of the profession in New England.

In December, 1866, Mr. Clark retired, and the former name of the firm, Morrison & Stanley was resumed. In 1872 Frank Hiland was admitted to membership, and the firm-name became Morrison, Stanley & Hiland. In 1874 the superior and circuit courts of New Hampshire were established, and Mr. Stanley was appointed one of the associate justices of the latter court in September of that year. The judiciary system of the state was changed in 1876 and Judge Stanley was appointed an associate justice of the Supreme Court then established. This position he held until his death. His selection was universally commended by the bar and the people of the state, his ability and fitness having been fully demonstrated during his service on the bench of the circuit court.

In 1865 Judge Stanley was chosen president of the City National Bank, which position he held until 1879. He was also at the time of his death a trustee of the Manchester Savings Bank. In 1881 he was made a trustee of Dartmouth College and continued until his death one of the foremost friends and safest advisers of that institution. He was a member of the Unitarian Church in Manchester, and for many years chairman of its Board of Trustees. He was an earnest promoter of the establishment of a school under the auspices of the Unitarian denomination, and was one of the committee of the Unitarian Educational Society to procure as a Unitarian institution the Proctor Academy, at Andover, N. H.

Judge Stanley was a firm believer in the principles of the Democratic party, but was not in any sense a politician and neither sought nor accepted political office. He was prominent in the Masonic fraternity, which he joined in January, 1862, and was Worshipful Master of Washington Lodge in 1867, and later the incumbent of important offices in the Grand Lodge of New Hampshire. But it was in his judicial capacity that Judge Stanley won his chief distinction. It has been said of him that "his discriminating mind, accurate memory, great love for justice and equity, and quick, energetic decision of character fitted him in a remarkable degree for the duties of his position."

He married December 24, 1857, Lydia A., daughter of William Woodbury, of Weare, N. H., who survived him. He died at his home December 1, 1884. At the law term of the Superior Court in March, 1885, resolutions in honor of the deceased judge were presented by Hon. Mason W. Toppan and responded to by Mr. Justice Blodget and Chief Justice Doe, and entered on the records of the court.

FRANCIS A. FAULKNER.*

FRANCIS AUGUSTUS FAULKNER was born to the rich inheritance of an honorable ancestry. Edmund Faulkner, the emigrant ancestor, came to New England from Kingscleare, Southampton, England, and, after a brief residence in Salem, Mass., he removed to Andover, Mass., and was one of the founders of the church in that town in 1645. He was married in Salem by Governor John Winthrop, February 4, 1647, to Dorothy Robinson. He died in 1687. His eldest son, Lieut. Francis Faulkner, born 1651, married, October 11, 1676, Abigail Dane, daughter of Rev. Francis Dane, the second minister of Andover. He died 1732. Mrs. Faulkner was tried for witchcraft and condemned to death, but her sentence was revoked. Ammi Ruhamah Faulkner, son of Francis and Abigail (Dane) Faulkner, removed to Acton, Mass. He built the "Faulkner Mills" in South Acton, and became one of the pioneer woolen manufacturers of Massachusetts. He was born in 1692, and died August 4, 1756.

Francis Faulkner, son of Ammi Ruhamah, was born in Andover, September 29, 1728, and died in Acton, August 5, 1805. He was town clerk of Acton thirty-five years. He was commissioned by George III. in the militia of the province. In the Revolution, he early espoused the American cause, and was a member of the Provincial Congress in 1774, and the following year he was commissioned a major of the militia. He was engaged at the battle of Lexington, and promoted to lieutenant-colonel, and served under Washington in the siege of Boston, and under Gates at Saratoga. His second wife was the mother of his eleven children. She was Rebecca Keyes, daughter of Captain Keyes, of Brookfield, Mass.

Francis Faulkner, the eldest child of Colonel Francis and Sarah (Keyes) Faulkner, was born in Acton, January 31, 1760, and died in Billerica, Mass., February 12, 1843. He was engaged in Watertown, Shirley and Billerica in the manufacture of woolen goods. He married Elizabeth Jones and second Ann Robbins.

Francis Faulkner, second son of Francis and Elizabeth (Jones) Faulkner, was born in Watertown, February 29, 1788. Like his immediate ancestors, he became a woolen manufacturer, and removed to Keene, N. H., in 1809, where he died, November 29, 1842. He was one of the early manufacturers of New Hampshire, and, associated with Mr. Colony, under the firm-name of Faulkner & Colony, he was successful in business, and honored as a citizen. He married June 10, 1818, Eliza Stearns, daughter of Eli and Mary (Whitney) Stearns, of Lancaster, Mass.

Eli Stearns, born 1757, died 1825, was a descendant in the fifth generation from Isaac Stearns, the emigrant ancestor; the line of descent being through Isaac, Isaac, Samuel and Benjamin. He was a soldier in the siege of Boston, and wounded in the service in 1777; subsequently he was assistant-commissary. He was a magistrate, a representative five years, and seventeen years treasurer of the town of Lancaster.

Francis Augustus Faulkner, son of Francis and Eliza (Stearns) Faulkner, was born in Keene, February 12, 1825. He fitted for college at Phillips Academy, Exeter, and graduated at Harvard College in the class of 1846. He read for his profession in the office of Phineas Handerson, of Keene, and continuing his studies at the Harvard Law School, he was admitted to the bar of Cheshire county in September, 1849.

Immediately Mr. Faulkner became associated in the practice of law with Wil-

* By Ezra S. Stearns.



J. A. Furber

liam P. Wheeler, a good lawyer and an able and skillful advocate. A sketch of either of these eminent lawyers would be incomplete without more than a passing notice of the other. Mr. Wheeler was a Democrat and Mr. Faulkner a Republican, but as lawyers in the well-remembered office on Roxbury street, they were friends and brothers indivisible. Mr. Wheeler made a greater number of arguments, but Mr. Faulkner prepared a greater number of cases and wrote a greater number of opinions. In this division of labor it is probable that each followed the inspiration of inclination more than a formal understanding between the friendly co-laborers. They worked together like actors in a play, each at once dependent upon and independent of the other. The litigant seldom regarded the one as a lawyer or the other as an advocate. So long had they worked together and so blended became their professional labors that Wheeler and Faulkner were jointly named as one speaks of an individual. Their clientage was large and eminently respectable. The firm was dissolved by the death of Mr. Wheeler in 1876. In the following year Mr. Faulkner associated himself with his son, Francis C. Faulkner, and Alfred T. Batchelder under the firm-name of Faulkners & Batchelder. The partnership was continued under happy auspices until the death of Mr. Faulkner, the senior partner, which occurred May 22, 1879.

Mr. Faulkner's employment in public affairs were holidays in the calendar of his professional labors. To him many political honors were tendered, but few were accepted. He represented Keene in the House of Representatives in 1851, '52, '59 and '60; he was county solicitor 1855-1860, moderator of the town meeting many years and a member of the first board of aldermen of the city of Keene. He was a member of the constitutional convention in 1876, and during the War of the Rebellion he was commissioner of enrollment for the third congressional district. In 1874 he was appointed associate justice of the Supreme Court, which he declined. In town and city affairs he was unflinching in the works and the graces of a good citizen, lending his services and his influence to every laudable enterprise. He was a director of the Cheshire National Bank and of the Ashuelot National Bank, and a trustee and president of the Cheshire Provident Institution for Savings.

In his profession Mr. Faulkner had few superiors. In the statement of a proposition he was forceful, logical and scholarly, and whenever he appeared as an advocate he was persuasive and effective. His characteristics were keenness of perception and a ready application of a liberal knowledge in all the branches of legal science. His capacity for rapid work and concise statement was remarkable. With such qualities of mind combined with a generous spirit and an agreeable manner he enjoyed the respect of his professional associates, and in an unusual degree the confidence of the court. In coming years, when his personality is farther removed, when his agreeable manner, his kindness of heart, and the force of his spoken words fade from memory into tradition, his fame will securely rest upon his miscellaneous law papers; clear and logical, argumentative and exact, they will continue to be cited as models of diction and substance.

As a lawyer Mr. Faulkner was respected, but as a neighbor and a friend he was loved. In all the qualities that adorn the human mind and lend the force of kindness to human impulse, he was unflinching. At all times and under all circumstances, his was the bearing of conscious rectitude, and his speech was the language of truth. He spurned deceit, and passed unwarranted pretention with silent contempt. He was generous, but not impulsive; kind and sympathetic, but always just. His friendship was pure and enduring, and he was ever pleased at the success of his friends, towards whom at all times his words and deeds expressed the fulness and richness of a manly and generous nature.

At a meeting of the Cheshire bar, held a short time after his death, the following resolution was adopted:

"That in the death of Mr. Faulkner the profession has been deprived of one of its ablest and most useful members, whose learning and ability, inspired and guided by the truest integrity, have singularly illustrated and adorned the bar of the state and country. His modest and unassuming manners have had no small influence in cultivating the professional amenities and courtesies which add so much to the pleasure of professional life, and redeem it from the opprobrium which, in other times and places, has been brought upon it by the unrestrained excesses of professional zeal."

In his domestic life Mr. Faulkner was fortunate and happy. He married, December 18, 1849, Caroline Handerson, daughter of Hon. Phinehas Handerson, of Keene. Their eldest son, Francis Child Faulkner, is a lawyer in Keene, and of the firm of Batchelder & Faulkner. He inherits the graces and ability, and maintains the high standard of his ancestry. Arthur, the second son, for some years was cashier of the Kansas National Bank, at Wichita, Kansas, and is now treasurer of the Trinity Cycle Manufacturing Company at Keene. Charles Henry, their youngest son, died in 1894.

HARRY BINGHAM.

HARRY BINGHAM was born in Concord, Vt., on the thirtieth day of March, 1821, being the third son of Warner and Lucy (Wheeler) Bingham. He was prepared for college at the Lyndon (Vermont) Academy, and entered Dartmouth College at the age of eighteen, graduating therefrom in the Class of 1843. Like most New England boys not "born in the purple," he contributed to the family exchequer by teaching in the districts and academies, his first effort being in the winter of his sixteenth year. He taught each succeeding winter thereafter till his graduation. During his college life he seems to have distinguished himself more for thorough, patient, persistent, conscientious work, than for the bubble-like brilliancy of the class leader. For those who have known him in his maturer years, it is not difficult to believe the testimony of his class-mates that he was honest, truthful, brave, generous and kindly, and an intense hater of shams and all forms of hypocrisy. His class-standing at graduation was good, though not above the average.

Having decided upon the law as a profession, he commenced a course of desultory reading, borrowing books for this purpose from the office of David Hibbard, Esq., of Concord, Vt. He afterwards pursued his studies for a time in the office of Hon. George Cahoon at Lyndon, Vt., and completed them with Hon. Harry Hibbard, the distinguished son of his first preceptor in the law, at Bath, N. H. He passed a rigorous examination successfully, and was admitted to the bar at Lancaster, N. H., in the spring of 1846. At that time Littleton, N. H., was, as it has ever since remained, the leading business and commercial town in the northern section of the state. It may be regarded as proven that Mr. Hibbard had even thus early discovered in his student evidence of that commanding ability and those sterling traits of character of which he and all others subsequently had such abundant confirmation. Being applied to by numbers of the leading citizens of Littleton to recommend some young lawyer of Democratic proclivities, ability and integrity, who might be induced to locate in Littleton, Mr. Hibbard at once named Mr. Bingham, then barely twenty-five years of age.

Accordingly, in the fall of 1846, Mr. Bingham took up his residence and com-



Henry Bingham

menced the practice of his profession in that town. That Mr. Hibbord ever after entertained a high opinion of Mr. Bingham's mental gifts and legal acquirements is well known. Toward the close of his all-too-short life, he remarked, that, "if you were to shut Harry Bingham up in a room alone without access to books or any other extrinsic aid in reaching a correct conclusion, he would, from sheer force of legal acumen, come out with a better and clearer idea of the law upon an intricate question than any lawyer I ever met."

Since his location in Littleton in 1846, a period of more than fifty years, Mr. Bingham has been a constant resident, and as its foremost and most distinguished citizen, has been closely identified with its growth, development and progress. He was alone in the practice until about 1852, in which year he formed a partnership with his younger brother, George Azro (twice afterwards a justice of the Supreme Court of the state), which continued till the firm of H. & G. A. Bingham, about 1859, was merged in the firm of Woods & Bingham, with offices at Bath and Littleton, N. H. This arrangement continued till 1862, when it was discontinued, and the old firm of H. & G. A. Bingham re-established, and continued in business till 1874, when it was dissolved, each member opening an independent office. Since that time, Mr. Bingham has had associated with him several young men, who have received their legal education in his office under his valuable instruction. He is at present the head of two firms—Bingham & Mitchell, at Concord, New Hampshire, with John M. Mitchell as junior partner, and Bingham, Mitchell & Batchellor, at Littleton, N. H., the other members being Hon. A. S. Batchellor and Hon. W. H. Mitchell, each one of whom is steadily rising to eminence in his profession, not less through native talent, than thorough equipment. To trace Mr. Bingham's career as a lawyer, it is necessary only to read the state law reports for a period covering the last forty years; he has appeared as counsel in practically every case of any magnitude, tried at *nisi prius*, or argued in bank, during that time. Nor has the demand for his services and counsel been confined to his own state; he has made professional journeyings into Vermont, Massachusetts, and New York, in the Federal courts, and before the Supreme Court at Washington he has not infrequently appeared. His practice has been general, rather than special, both civil and criminal. Among some of the more important civil cases with which he has been connected, as leading counsel taken at random from memory, may be mentioned *Laird vs. Passumpsic Railroad*, action for destroying by fire valuable set of buildings by spark from defendant's engine; *Hilliard vs. Beattie*, civil damages for permanent injuries received in a stabbing encounter; *National Bank of Newbury, Vt. vs. Penacook Savings Bank*, involving some \$15,000 or \$20,000 for fraud in the sale of bonds; *New Hampshire Land Co. vs. Tilton, Bellows et. al.*, involving vast real estate interests. He was for years general counsel for the Concord and Montreal Railroad.

In the criminal branch of the law he has been connected with nearly or quite all the capital cases tried in the northern part of the state during his professional career—in every instance save one, that of Mills, the murderer of Maxwell at Franconia, when he appeared for the state—for the defence. He defended Pat. Scannell, of Bethlehem, tried for the murder of his wife, and got his client acquitted, as he did also Moses B. Sawyer for the murder of Mrs. John Emerson at Piermont. In *State vs. Dickey* he succeeded in getting the minimum sentence for manslaughter. More recently, he appeared for the defence in *State vs. the Williamses*, which resulted in an acquittal for the respondents. He was leading counsel for President Bartlett, of Dartmouth College, in the investigation of his administration instituted by the New York Alumni Association, represented by Judge Fullerton, Sanford H. Steele and

A. W. Tenney. In this contest Mr. Bingham proved himself fully the peer of any of his distinguished opponents, in learning, forensic ability and skill in handling the weapons peculiar to legal warfare. Briefly, it may be said that Mr. Bingham has met the foremost lawyers of his time from different sections of the country, and has in no way suffered by comparison. In manner of speech and habit of thought, he more nearly resembles the mighty Webster, than any eastern man who has been in the public eye since the death of the "great expounder." Had his lot been cast where wider fields of activity would have opened to him, where affairs of greater moment would have come to his hand, it is doubtful if any American of his time would have achieved wider or more enduring fame as a lawyer. In politics Mr. Bingham has always been an uncompromising Democrat of the stalwart type. He first represented his town in the legislature in 1861, where he at once became the unquestioned leader of his party upon the floor, a position he has ever since held, through his entire legislative experience, covering some sixteen or more elections to the legislature, and two terms in the state senate. He was twice the nominee of his party for Congress, in 1865 and in 1867. In 1870, 1872, 1879, 1883, 1885, 1887 and 1889 he was the choice of the Democracy for United States senator. It was the ambition of practically every Democrat in the state to see Mr. Bingham in the senate, and had this ambition been realized it is unquestionably true that with his ripe scholarship, his profound knowledge of the science of government, his strong mental endowments, and his forceful, sinewy diction, he would have taken a commanding position in that congregation of the nation's wisdom and eloquence. He has held no appointive office, though it is known that on more than one occasion he might have had a judgeship, but the honor was declined. He was, in 1874, nominated by Governor Weston for chief justice, but certain sinister corporate influences were successfully brought to bear to prevent his confirmation by the council: with a mind eminently judicial, and a legal equipment such as few men possess, he would have been an able judge, and "the ermine, when it fell upon his shoulders, would have touched nothing less spotless than itself."

He has represented his state in national Democratic conventions for more than twenty-five years, and in 1880 was prominently mentioned as the eastern candidate for second place on the National Democratic ticket. He has, notwithstanding the exacting duties of his profession, been a wide reader, and has made himself master of the best in literature of all nations and times; this habit, with a memory which nothing escapes, has made him a man of vast information and wide culture. Abundant evidence of this is found in his occasional addresses, notably, on the Venezuela controversy, delivered before the Grand Army of the Republic Post of his town, December 26, 1895; his discussion of the powers and duties, and the rights and responsibilities of the government, the scope and limits of the powers of the Constitution, in breadth of view, and comprehensive statesmanship, was not surpassed by any person essaying the discussion of the question on either side of the water. His address as chairman of the convention to ratify the nomination of Palmer and Buckner on "consistent adherence to Democratic principles," was a stinging, albeit dignified rebuke to the time-serving, truckling, place-hunters of his party, and will be a lasting monument to his unflinching political integrity. His discursive English is lucid and strong resembling Macaulay's, though less ornate and exuberant. Mr. Bingham has never married, and has not gone much into society, but is a most charming conversationalist and entertainer. His religion is a broad philosophy, uncircumscribed by creed, unhampered by "doctrine;" it embraces a strong belief in a supreme intelligence, and an optimistic faith in the upward progress of humanity



J. F. Miller

—here and hereafter,—not “progress” toward a condition in which the children of men shall be robbed of every faculty save the capacity for suffering,—but toward intellectual and moral perfection. He is a liberal, tolerant, broad-minded gentleman, whom it is neither adulation nor exaggeration to call “a great man.”

JOHN HENRY ALBIN.

MR. ALBIN is the son of John and Emily (White) Albin, and was born in West Randolph, Vt., October 17, 1843. He fitted for college at the High School in Concord, N. H., and graduated at Dartmouth in 1864. Soon after his graduation he entered, as a student at law, the office of Hon. Ira A. Eastman, and was admitted to the bar at Concord in October, 1867. No better preliminary school for a student could have been found in New Hampshire than the office to which Mr. Albin was fortunate enough to be admitted. Mr. Eastman was a graduate of Dartmouth in 1829; a member of Congress from 1839 to 1843; one of the Circuit judges of the Court of Common Pleas from 1844 to 1849; a judge of the Superior Court from 1849 to 1855, and a judge of the Supreme Court from 1855 until he resigned in 1859 to devote himself to the practice of his profession. While Mr. Albin was pursuing his studies Judge Eastman had every opportunity of measuring his abilities, and the fact that, in April, 1868, he became associated with the judge as a partner was a sufficient indication of the character of the measure he had taken. The business of the firm assumed proportions and importance unsurpassed by any law-firm in the state.

In 1874 the firm was dissolved, and Mr. Albin became associated with Mason Weare Tappan, a man whose career both as a lawyer, statesman and soldier had been a credit both to himself and his state. The firm continued until the death of Colonel Tappan in 1884.

In 1885 Mr. Albin formed a partnership with Nathaniel E. Martin, under the firm-name of Albin & Martin. In 1896 De Witt C. Howe was admitted a partner, and the firm-name became Albin, Martin & Howe, and still continues in the enjoyment of an extensive business. He has permitted himself, however, at various times, to take on other interests than those of the law, but which have not been sufficiently absorbing to interfere with his professional work. In 1872 and 1873 he was a member of the legislature, serving the first year as a member of the judiciary committee, and the second as chairman of the committee on railroads. In 1875 he removed his residence to Henniker, N. H., and was a representative from that town in 1876, serving again as a member of the judiciary committee and chairman of important special committees. His farm in Henniker afforded him an opportunity both to indulge in the gratification of his agricultural tastes and to find relief from his professional labors. In 1892 he again became a resident of Concord.

As a member of the Odd Fellows' organization Mr. Albin holds high rank. He has filled all the official positions in the Grand Lodge, of which he was chosen Grand Master in 1879. He represented the Grand Lodge at the sessions of the Sovereign Grand Lodge in Cincinnati and Baltimore in 1881 and 1882, and as member of a committee appointed at the former place prepared and reported at Baltimore a Degree for Uniformed Patriarchs, now known as Patriarchs Militant, which involved much care and labor. At a session of the Sovereign Grand Lodge at Minneapolis in 1884 he was made chairman of the committee of the Patriarchal Branch of the order, and

also chairman of a committee to report a revision of the Degree above referred to as reported at the session in Baltimore in 1881. He was also a representative of the New Hampshire Grand Lodge in the Sovereign Grand Lodge in 1885 and 1886, and Grand Marshal of that body in 1888 and 1889.

In 1882, or about that time, he became associated with the "Connecticut River Railroad Line" as its New Hampshire representative and attorney. In 1886 he was made a director in the "Sullivan County Railroad," and in 1893 its president. In 1891 he was made a director in the "Connecticut River Railroad Company," and in 1892 a director in the "Vermont Valley Railroad Company of 1871." These last three roads, in which he still occupies the above positions, compose the "Connecticut River Line" first above-referred to. In 1888 he became a director in the Concord Street Railway, and since 1891 has been its president.

Mr. Albin married, September 5, 1872, Georgie A., daughter of Joseph and Achsa (Farrar) Modica, of Henniker, and has had two children: Henry A., born February 5, 1875, and Edith G., born August 5, 1878. He is now in the prime of life, vigorous in mind and body, industrious in the management of a large and lucrative practice, and having no inclination or taste for political emoluments and honors.

CHESTER BRADLEY JORDAN.

THE highlands of northern New Hampshire are known throughout the world. Their lofty summits and deep ravines are justly celebrated. The race of men inhabiting that hill-country, with its rugged slopes and fertile valleys, accustomed from youth to the presence of nature's grandest forms, are perceptibly affected by their majestic environment; and, in accord with natural law, become mental as well as physical giants. Too few have been the generations nurtured amid such surroundings to produce a distinctive type; but the old Puritan stock of Connecticut and Massachusetts, finding here a congenial abiding-place, has had an ideal theatre for its best growth and development. As a consequence Grafton and Coös counties have already given to the state and nation men of great ability and sterling worth, whose names are inseparably connected with our country's history.

In the historic region of Upper Coös, situate upon one of nature's grandest terraces, nestling among the everlasting hills, dotted with many a sheeny lake, and traversed by many a crystal stream, is Colebrook, the beautiful. Here, on October 15, 1839, Chester Bradley Jordan, youngest son of Johnson and Minerva (Buel) Jordan, first saw the light of day.

The Jordan family is probably of French origin. One of the name is known to have followed William the Conqueror. Others by the name of Jourdain, probably of Huguenot stock, migrated at an early day to New England, and became loyal Americans.

Benjamin Jordan, son of Edmund Jordan, was born in the old town of Rehoboth, Mass., served four years in the Continental Army, and was a member of the daring little band that effected the historic capture of General Prescott.

Johnson Jordan, son of Benjamin Jordan, was born in Plainfield, April 8, 1798, settled in Colebrook in 1818, married in 1822, Minerva Buel, and died August 16, 1873. He was a strong man physically, of fair judgment and sense, who passed many years of his life in the arduous and unremunerative labors of a pioneer and clearer of lands.



C. B. Jordan
July 22, 1887.

Minerva Buel, born in Hebron, Conn., July 19, 1801, was the daughter of Capt. Benjamin Buel, who was born August 20, 1767, and settled in Colebrook in 1803.

Benjamin Buel was a scholar, of refined tastes, an elegant penman, and for many winters a highly prized teacher in Colebrook. His wife, Violetta Sessions, a native of Connecticut, a lady of considerable culture, died in 1855 at the age of seventy-seven years.

To Johnson and Minerva (Buel) Jordan there were born ten children, six of whom attained the age of maturity. The mother was a noble Christian woman, dutiful, sensitive, modest, tender and lovable, and keenly alive to the wants of others. Loyal to her convictions, she was for many years a valued member of the Congregational Church, and her teachings, influence and example had a perceptible and beneficial effect upon her children. She died at Colebrook March 13, 1853.

The early years of Chester Bradley Jordan, the subject of this sketch, were years of incessant labor and unremitting toil, with scant advantages of education, and little of encouragement. The slightest approach to luxury was unknown in the frugal household, where nothing but homespun clothing and the bare essentials of life found a place. Yet the cheerless tasks were faithfully performed, and the privations of pioneer life were endured without complaint. But the lad's indomitable spirit, and his hunger for a knowledge of men and things, led him into research beyond the Bible and well-thumbed school-books which constituted the family library, and the few volumes of the scant collection of the Sunday-school were eagerly devoured and digested.

For years of toil and endurance such as young Chester's, self-reliance is the sure reward, and so it was, that in 1860 we find him, upon his own resources, and with his innate thirst for knowledge, entering Colebrook Academy, and later, Kimball Union Academy, at Meridan, until, by intermittent labor and study, he was graduated at the latter institution in 1866. His course had long been watched, and his abilities were at once acknowledged and recognized. He was superintending school committee of Colebrook in 1865-7, selectman for 1867, and had a large share in the management of other affairs of this shire town of the county.

Punctual and persevering, faithful and efficient, his success in these positions brought him early to the notice of the justices of the supreme court, as a desirable person for its clerk, and he was appointed to the clerkship for Coos county in 1868, which office he filled with profit to himself, and satisfaction to the bench and bar of the state until 1874, when, against the protests of nearly every attorney in the county, regardless of political faith, the inexorable decree of a new-born Democratic administration demanded the removal of one who had so early and ardently espoused and fostered the Republican cause.

Having already commenced the study of the law while still clerk, he continued his reading in the office of Judge William S. Ladd, of Lancaster (to which town he had gone on receiving his appointment); he concluded his course in the office of Ray, Drew & Heywood, and was admitted to practice in the state courts in November, 1875, and in the United States courts in May, 1881. Upon the retirement of Mr. Heywood, in 1876, the firm became Ray, Drew & Jordan. This firm was succeeded, in January, 1882, by Ray, Drew, Jordan & Carpenter; later by Drew, Jordan & Carpenter; then by Drew & Jordan, and is now Drew, Jordan & Buckley.

Closely attached to his home life, in which he is especially happy, and loth to be separated from it for ever so short a time, Mr. Jordan early found himself becoming essentially "the office man" of the several firms of which he has been a useful member. As a lawyer, therefore, he has devoted his attention to the duties of a coun-

seller, and to the drafting of legal papers (in which he excels), rather than to the trial and advocacy of causes. Associated in business with two such noted advocates as Hons. Ossian Ray and Irving W. Drew, and unwarrantably distrustful of his abilities in this direction, Mr. Jordan has seldom ventured into the field of advocacy. When, however, by reason of the illness or absence of his partners, or from other cause, he has been impressed into this service, he has displayed a power of forensic oratory which was a revelation to his professional brethren, and furnished an occasion of regret to his friends because he had not made it his life-work. His style of address in the argument of causes is of the rapid, ardent, intense, almost vehement, character. His apt and ready words follow each other in ceaseless and quick succession, and go home with the force, and precision, and rapidity of the Gatling's fire. And herein lies the secret of his power when his voice has been heard in advocacy or defense of his political faith in the heated campaigns of the north country.

Following the bent of his early years, Mr. Jordan has sought and found relaxation from the burdens of a busy practice in historical and political reading and writing. Such was his thirst for knowledge along these lines that, at an age when he might reasonably have been thinking of his toys, it was found that he had picked berries and from their sale paid for a subscription to the *Independent Democrat*, and a little later, to the *New York Tribune*; and here began his taste for political history, his admiration for journalism, and his demand for a knowledge of, and a participation in, current events. In 1870, amid the multitudinous duties of clerk of the court, Mr. Jordan purchased the *Coös Republican*, became its editor, and gave it high rank among the papers of the state. For many years he contributed political and historical articles to the *Boston Journal*, *Concord Monitor*, the *Statesman*, and the local press. Few pens have been oftener or more potently wielded in defense of the Republican party of New Hampshire and of the nation, than Mr. Jordan's. The chief charm of his style is its perspicuity and force; and so natural and easy to him are both the manual and mental uses of the pen, that almost unconsciously—certainly without effort—his facts array and arrange themselves in fetching and forceful order; and his first draft is almost sure to be the finished product. Epigrammatic, perspicuous and forceful in style, accurate in statement of facts, an adept in the graces of rhetoric, he has won an unenviable reputation as a writer on current political questions. But Mr. Jordan has also, with marked success, entered the field of more polite literature. For the New Hampshire Historical Society he has written an essay on the Life of Colonel Joseph Whipple; for the History of Coös County (W. A. Ferguson & Co., 1888,) Biographical Sketches of Hon. Amos W. Drew, Dr. Frank Bugbee, and Philip Jordan,—while he inspired and directed many other chapters of the work; for the Grafton and Coös Bar Association, the Biography of Richard Clair Everett, and many other valuable papers and treatises, which have contributed in no small degree to give the published proceedings of this association high rank among the literature of their kind throughout the Union.

Besides his very full law library, Mr. Jordan has a choice library of general literature, especially rich in its collection of works of local and general history and biography,—with all of which he is thoroughly familiar. His books are his friends, not his furniture.

In politics Mr. Jordan has always been a staunch Republican. As a boy of nine years he took a lively interest in the campaign which placed Gen. Taylor in the presidential chair; and in 1852, at the age of thirteen, he purchased the campaign life of Gen. Scott, substantially committed it to memory, and made much greater use of his information than could have been expected of a lad of his years. From that

time to the present Mr. Jordan has been indefatigable in his service to the principles of his party. A close canvasser, a good organizer, and a natural leader, even before he could exercise the privilege of the franchise, his counsel was often sought and his advice usually followed in matters of local political interest.

In 1880, in a political contest which is still remembered as one of the most heated ever known to his adopted town of Lancaster, Mr. Jordan, by a magnificent run and gain for himself and his party, was chosen by a majority of one to represent the town in the General Court. Though a novice in the halls of legislation, he was chosen Speaker of the House by a very complimentary vote. A keen and accurate judge of men and measures, alert, sagacious and efficient, he was admirably fitted to the duties of his difficult and important office; and he quickly demonstrated the justice of the choice by his impartial, easy and expeditious conduct of the business of perhaps the largest legislative body in the Union, excepting the National House of Representatives. The house over which Mr. Jordan presided will go down in history as the ablest in the annals of New Hampshire. Before him sat such men as Gen. Gilman Marston, Gen. Aaron F. Stevens, Gen. Daniel E. Colby, Hon. Wm. E. Chandler, Gov. Walter Harriman, Hon. Harry Bingham, Hon. Ira Colby, Hon. A. M. Shaw, Rev. A. H. Quint, D.D., Prof. E. T. Quimby, Hon. E. B. S. Sanborn, Hon. John Hatch, Hon. Henry Robinson, Hon. Herman W. Green, Waterman Smith, Dr. Irving A. Watson, A. L. Brown, Hon. Joseph D. Weeks, Hon. E. D. Coffin, and scores more of New Hampshire's ablest sons. Yet in the presence of such as these, Mr. Jordan's efficiency, courtesy and fairness at once won him many valuable friends on both sides of the house; and at the close of the session, the *Manchester Union*, the leading Democratic paper of the state, thus voiced the general sentiment: "For Speaker Jordan there is but one encomium, 'Well done, good and faithful servant.'"

In 1882, as chairman of the Republican State Convention, when factional feeling ran high between the adherents of the rival candidates for the gubernatorial nomination, the Hon. Moody Currier and the Hon. Samuel W. Hale, Mr. Jordan, by his supreme tact and adroit management, brought order out of what seemed a chaos in the party; and the work of the convention was successfully and harmoniously accomplished.

In 1886 he was unanimously nominated as state senator for the Coös District, and conducted a valiant campaign in the face of overwhelming odds; yet, though he ran three hundred votes ahead of his ticket, he could not carry that Democratic stronghold. The people of the district, however, were not satisfied, and again in 1896, notwithstanding his public declination to become his party's candidate for the office, he was unanimously nominated. Prevailed upon at length to run, he entered the campaign with characteristic vigor, and was elected by the largest majority ever given any candidate for any office in the county. He was the unanimous choice of his party for president of the senate, and was unanimously elected to that office, a tribute not paid to another in the state for more than a century. Fortified by his experience as speaker of the House, riper in years and knowledge, he brought to the senate the qualifications of an ideal presiding officer, and demonstrated the wisdom of their selection. In performing the duties of this important position Mr. Jordan displayed such familiarity with public affairs generally, such a knowledge of the necessities of the state, such business sagacity and executive ability, that he was at once hailed as the natural and logical candidate of the party for the high office of governor of his native state.

In addition to professional and political distinctions, Mr. Jordan's abilities have received recognition in business, social and scholastic honors. He has been often

urged to accept an appointment to the supreme bench of the state ; in 1867 he was tendered, but was compelled to decline, a position on the staff of Governor Harriman ; but the honor was again proffered, in 1872, by Governor Straw, and Mr. Jordan's acceptance and service justify his title of colonel. In 1881 Dartmouth College conferred upon him the degree of A. B. ; in 1882 he was chosen honorary member of the Third Regiment, New Hampshire National Guard ; in 1883, honorary member of the Webster Historical Society of Boston, and he has long been a member of the New Hampshire Historical Society ; in 1884 he was chosen honorary member of the Seventh New Hampshire Veterans Association ; has for several years been first vice-president of the Grafton and Coös Bar Association, and has long been a member of Evening Star Lodge of Masons, at Colebrook, and of North Star Chapter, at Lancaster. He has for years been a valuable member of the directorate of the banking institutions of Lancaster, and is the safe guardian of many private trusts, to which he faithfully lends his business acumen and unerring judgment.

Mr. Jordan married, July 19, 1879, Ida R. Nutter, daughter of Oliver and Roxannah C. (Wentworth) Nutter. She is descended from old New Hampshire families of repute, is a lady of refined taste and rare musical talent, is the princess of hostesses, a woman of the broadest Christian charity in spiritual and moral, as well as in material things, and is, in all things that go to make up a happy household, the complement of her distinguished husband. Of this union there have been born four children : Roxannah Minerva, born January 9, 1882 ; Hugo, born May 26, 1884, died May 2, 1886 ; Gladstone, born May 15, 1888 ; and Chester Bradley, Jr., born February 15, 1892.

Though essentially a home-body, Mr. Jordan has nothing of the recluse in his nature, but, on the contrary, takes much delight in the social side of life. His hospitality is proverbial, and his home is much sought by his large circle of friends. Though a capital after-dinner speaker, it is at his own private board that he is at his best as an entertainer, for there, surrounded by his family and his friends, he is supremely happy, and his merriment is contagious. Of ready wit, his genteel badinage and thrusts of repartee are pointed, but without sting. A keen appreciation of humor and a retentive memory enable him to tell the best of stories in the best possible manner, while his ready conception of the ludicrous, and his powers of invention and description constantly add to his store. True to his temperament, and to the memory of his earlier days, Mr. Jordan's vacations are spent "near to nature's heart," amid the forests and along the streams of his native Coös. He is an ardent disciple of Isaak Walton, and delights in nothing more than "a night on the boughs with the boys." With a commanding physique and an urbane manner, warm of heart, genial in spirit, practical and generous in his charities, he at once creates an impression, which is deepened by acquaintance, and made lasting by intimacy. He wields a powerful influence in the community in which he lives, where he is highly esteemed and justly popular.

ALFRED TRASK BATCHELDER.

IN the middle of the last century, when Beverly, Mass., was a flourishing seaport, engaged extensively, like Salem, Portsmouth, Newburyport, Plymouth and Marblehead, in prosperous commercial pursuits, a life on the ocean was one to which its young men of ambition aspired, and to which they looked for a secure and contented livelihood. Among these young men was the great-grandfather of Alfred Trask Batchelder, and in the command of a ship his career was crowned with success. His son, Zachariah Batchelder, in consequence, probably, of the uncertain conditions



A. J. Bateman

of navigation in Revolutionary times, entered on a business rather than a sailor's life, and removed from Beverly to Sunapee, New Hampshire. His son, Nathaniel, born in Beverly, went in his youth with his father to Sunapee and there became a successful farmer, occupying a prominent position in the town, and taking an active part in the administration of its affairs. He married, in Sunapee, Sarah Trask, of Newport, N. H., and the subject of this sketch was his son. He was a man of moderate means, but in the education of his children he took great interest and pride.

Alfred Trask Batchelder, son of Nathaniel and Sarah (Trask) Batchelder, was born in Sunapee, N. H., February 26, 1844. He received his early education in the district schools of his native town and at the academy in New London, N. H., and fitted for college at the seminary in Tilton, N. H. He graduated at Dartmouth College in 1871, and studied law in the office of Judge W. H. H. Allen and Hon. Ira Colby, in Clairmont, N. H. Both of his instructors were eminent in their profession, and under their guidance he laid the foundations for the pursuit of a profession in which he has become successful and distinguished. He was admitted to the Sullivan county bar in September, 1873, and at once began practice in Clairmont, associated with Mr. Colby, whose pupil he had been. He remained with Mr. Colby until 1877, supplementing his earlier education in the law by the preparation for trial of many of the important cases in which his partner was engaged. In 1877 he removed to Keene, N. H., and became a partner with Francis Augustus Faulkner and his son, Francis C. Faulkner, under the firm-name of Faulkners & Batchelder. His connection with Mr. F. A. Faulkner, not only attested the high position which he had already attained at the bar, but furnished also the best opportunities for his further advancement. Mr. Faulkner was a thoroughly educated lawyer, a graduate of Harvard and of its law school. He had been in practice in Keene since 1849, and three years before his connection with Mr. Batchelder had declined an appointment to the bench of the Supreme Court of New Hampshire. No man at the bar was more respected, or enjoyed more fully the confidence of the community. He died May 22, 1879, and during the two years in which Mr. Batchelder was associated with him the business of the firm was established on the firm basis which it has since fully retained. Since the death of Mr. Faulkner the partnership of Mr. Batchelder with his son, Francis Child Faulkner, has continued under the firm-name of Batchelder & Faulkner.

Notwithstanding the extensive practice which Mr. Batchelder enjoys, he finds time to engage in enterprises and pursuits outside of his profession. His fellow-citizens have not failed to demand his services in their behalf, and in 1885 and 1886 he was mayor of Keene. He is president of the Cheshire Provident Institution for Savings, president of the Impervious Packing Company, president of the C. B. Lancaster Shoe Company, president of the Stoddard Lumber Company, director in the Emerson Paper Company of Sunapee and a director in the Ashuelot and Keene National Banks. In the line of his profession he succeeded Judge W. H. H. Allen as register of bankruptcy under the United States Bankrupt Law, and from 1879 till the Cheshire Railroad Company consolidated with the Fitchburg Railroad he was its general counsel.

Mr. Batchelder is associated with the Episcopal Church, and in politics is active in the ranks of the Republican party. As a churchman and politician, while not a church member nor a seeker for office, he freely responds to all reasonable demands on his time and purse. He is prominent in the ranks of Masonry and a member of the Hugh De Paine Commandery of Knight Templars.

Mr. Batchelder married April 24, 1879, Alice H., daughter of Peter B. and Mary H. Hayward, of Keene, and has two sons fourteen and fifteen years of age now attending school.

CHAPTER CLXII.

THE CONSTITUTIONAL HISTORY OF RHODE ISLAND.

BY WILLIAM T. DAVIS.



THE earliest incidents in the history of Rhode Island were those connected with the expeditions of the Northmen. Many have doubted whether those Northern voyagers ever extended their explorations as far south as the lands contiguous to Narragansett Bay, but the more their voyages are studied the more faint those doubts become. The inscription on Dighton Rock, in the town of Berkley, on the east bank of Taunton river, which flows into Mount Hope Bay, has attracted the attention of historians and scholars as a probable memorial of the hardy Norwegians. The question which has to a certain extent divided the opinions of experts is, whether this inscription is Scandinavian or the rude work of the aborigines. The settlement of this question in the affirmative will also establish the fact that the Northmen visited the waters and shores of Rhode Island, while, if settled in the negative, there is other testimony in favor of such a visitation.

Professor Rafn, of Copenhagen, familiar with the language of the ancient Norsemen, and Professor Finn Magnussin, a native of Iceland, have expressed an opinion in favor of its Runic or Scandinavian origin, and the former has given as its translation: "Thorfin, with one hundred and fifty-one Norse seafaring men, took possession of this land." Professor Rafn, in speaking of the inscription, in 1859, said: "We find in various parts of Scandinavia written characters on rocks and walls that we know were made by the Norsemen, and as we know they visited that locality, it is not impossible that it was made by them." It seems to be a well-authenticated fact that Thorfin entered Mount Hope Bay in 1007, and passed the winter of 1007 and 1008 on its shores. The Icelandic Sagas are undergoing rigid investigation at the hands of the Royal Society of Northern Antiquaries of Copenhagen, and their records were published in 1837, by Professor Rafn, in a work entitled "Antiquitates Americanae." A perusal of these records and of the varied literature on the subject to which Edward Everett, Joshua Toulmin Smith, Eben Norton Horsford and J. P. Baxter, have contributed, leaves little reason to doubt that Narragansett Bay, Mount Hope Bay and Taunton river were visited by the Northmen in the above years. It is a singular circumstance that "Hop" is the Runic for "Bay," and that the word "Hop" is used in the Saga narrative in connection with Mount Hope Bay. This may be merely a coincidence, but it is within the bounds of possibility that the name Mount Hope is of Runic origin.

After the lapse of six hundred years the territory comprising the state of Rhode Island came again to the surface of the current of history. On the 10th of April, 1606, James the Second granted by letters patent a strip of territory one hundred miles wide, and extending from the 34th to the 45th degree of latitude, to two com-

panies, one consisting of divers knights, gentlemen, merchants and others, of London, and the other of divers knights, gentlemen and others, of Bristol, Exeter and Plymouth, and other places. The first company were to occupy the lands between the 34th and 41st degrees, and the second between the 38th and 45th, it being stipulated that the three degrees granted to both companies were to be possessed by the company first occupying them. The territory included within the state of Rhode Island was within the limits and jurisdiction of the second company. This company received a new charter, dated November 3, 1620, under the name of "The Council established at Plymouth in the County of Devon for the planting, ordering, ruling and governing of New England in America," but it is often referred to by historical writers as "The Northern Virginia Company." The charter of this company was abrogated in 1635, and from that time until 1643 the Rhode Island territory remained the ungranted property of the realm occupied chiefly by the Wampanoag and Narragansett tribes. A portion of the territory now consisting of the towns of Little Compton, Tiverton, Bristol, Warren, Cumberland and Pawtucket, was claimed by the Plymouth Colony as a part of their grant from the council for New England in 1629, and remained under the jurisdiction of that colony until 1692, and under that of Massachusetts, after the union of that date, until, by a decree of a royal commission confirmed in 1747, it was given up to Rhode Island. Simultaneously with the abrogation of the charter of the council for New England in 1635, Roger Williams becomes identified with Rhode Island history. The opening scenes of that history, in which Williams was the chief actor, are as picturesque and dramatic as those attending the foundation of other American colonies, not one of which, however, can point to a single individual who, like Williams, was its undisputed and masterful founder. On the 5th of February, 1631, at the age of twenty-five, he arrived in Nantasket roads, and on the 8th landed in Boston. The next day, which had been assigned for fasting and prayer for relief from the famine with which the Massachusetts colony was threatened, was made a day of thanksgiving and praise for the sudden relief afforded by the provisions brought by the ship "Lyon" in which Williams was a passenger, and on that occasion he joined in the ceremonies. From time to time exploring biographers have discovered the incidents of his early life. Born probably in 1599 or 1600, after acquiring an early education of perhaps a somewhat limited character, he seems to have been employed in taking down in short-hand the proceedings in the Star Chamber. While thus engaged he attracted the attention of Sir Edward Coke, through whose influence he was entered at Sutton Hospital June 25, 1621, and at Jesus College, Oxford, April 30, 1624. It is believed that he was admitted to orders in the established church, and soon entered the ranks of the Non-Conformists. The season of his conformity must have been short, as only seven years elapsed from the date of his entry to Jesus College to his arrival in Boston. It is evident that some knowledge of him as a man of ability must have been had in the Massachusetts colony before his arrival, as shortly after his landing he was invited by the church in Boston to succeed Francis Higginson in the ministry.

Before going to Salem, he had, during his short residence in Boston, made himself obnoxious to the government, and in a letter from the Council to Mr. Endicott at Salem, much surprise was expressed that he should have been invited without consulting that body. The letter stated that he had refused "to join with the congregation at Boston because they would not make public declaration of their repentance for having communion with the churches of England while they lived there, and besides had declared his opinion that the magistrate might not punish the breach of the Sabbath, nor any other offence, as it was a breach of the first table" of the decalogue.

His connection with the Salem church was short, and before the expiration of the year 1631 he removed to Plymouth, and until 1633 was an assistant of Rev. Ralph Smith in the church at that place. At some time, probably before he went to Salem, he was invited to become teacher in the church at Boston, and his reply to the invitation perhaps contained his allusion to the necessity of repentance for having communion with the English churches. In a letter dated Providence, March 25, 1671, to Rev. John Cotton, of Plymouth, he said that "being unanimously chosen teacher at Boston (before your dear father came divers years) I conscientiously refused and withdrew to Plymouth because I durst not officiate to an unseparated people as upon examination and confession I found them to be." He could not have found in Plymouth a more congenial atmosphere. The Plymouth colony, while distinctively a colony of separatists who had nearly twenty years before renounced all allegiance to ecclesiastical rule, had been so long established as an independent body of Christians that like all seceders they had come in time to accord to those whose fold they had left the same charitable judgment which they claimed for themselves. While in Plymouth he wrote a treatise maintaining that the Massachusetts colony derived no just title to their lands from their royal charter and that such a title could only come from the Indians, the real owners of the soil. He charged King James with a lie in declaring that he was the first Christian prince that had discovered the land and with blasphemy in calling Europe Christendom. He returned to Salem and acted as the assistant of Rev. Mr. Skelton about two years at the end of which time the General Court became so incensed at his promulgation of disturbing theories that on the 23rd of September, 1635, by a formal edict it declared :

"Whereas Mr. Roger Williams one of the elders of the Church of Salem hath broached and divulged divers new and dangerous opinions against the authority of magistrates—as also writ letters of defamation both of the magistrates and churches here, and that before any correction and yet maintaineth the same without retraction, it is therefore ordered that the said Mr. Roger Williams shall depart out of this jurisdiction within six weeks now next ensuing, which if he neglect to perform it shall be lawful for the Governor and two of the magistrates to send him to some place out of the jurisdiction not to return any more without license from the Court."

Permission was afterwards given him to remain until the spring of 1636, but hearing that a plan was on foot to send him to England, he left Salem in the month of January of that year and wandered inland, apparently without any settled purpose as to the route of escape from the jurisdiction of the court or as to a final destination. His first resting-place was on what is known as Barton's Neck on the east side of Seekonk river, in the town of Seekonk, where he obtained a grant of land from Massasoit, and made arrangements for a permanent residence. He had no sooner become fairly settled than Governor Winslow, of the Plymouth Colony, wrote him a friendly letter accompanying a present of money and advising him that as "he had fallen into the edge of their bounds and they were loth to displease the Bay," he had better "remove but to the other side of the water." Readily accepting the advice of Winslow, he, with five companions, William Harris, John Smith, Francis Wickes and probably Thomas Angel and Joshua Verin, who had followed him from Salem, sailed down the river and landed where the city of Providence now stands. Here he received a grant of land from Canonicus, the chief of the Narragansetts, and began to lay the foundation of a new colony. The date of the deed given subsequently was March 24, 1637. In thus accepting an Indian title to his grant he repudiated all royal ownership of the territory, but was, nevertheless, in danger of being

ousted at any time by a colony holding a royal charter. Such an event he was fortunate, however, to escape. Soon after his purchase he admitted to his ownership Stukely Westcott, Wm. Arnold, Thomas James, Robert Cole, John Greene, John Throckmorton, William Harris, William Carpenter, Thomas Olney, Francis Weston, Richard Waterman, Ezekiel Holyman, and these with Williams were the thirteen original proprietors of Providence. Grants were made by them to the other colonists as fast as they joined the company. A compact was entered into which declared that "we whose names are hereunder, desirous to inhabit in the town of Providence, do promise to subject ourselves in active or passive obedience to all such orders or agreements as shall be made for public good for the body, in an orderly way, by the major assent of the present inhabitants, masters of families, incorporated together into a town fellowship, and such others as they shall admit unto them only in civil things."

The Plymouth colony was both church and state, the Providence colony was a state alone. Though not like the Pilgrim Compact, having the distinction of enunciating the first free constitution of government, the Providence Compact deserves commemoration as a decree of divorce of the power of the magistrates from the authority of the church. The first church in the Providence colony was organized in 1639, and the machinery of town government was set up and put in motion. In the mean time three other colonies or towns had planted themselves within the limits of the present Rhode Island, one at Portsmouth, in 1638, on the island of Rhode Island; one at Newport, made up of seceders from Portsmouth, in 1639; and one founded by Samuel Gorton, who, after banishment from Portsmouth and a varied subsequent experience, established the colony of Warwick in 1642. The colonies of Portsmouth and Newport were united in 1642, and William Coddington was chosen governor. There is neither space in this narrative nor a necessity for a detailed statement of the condition of these four colonies or towns during their infancy, nor of the dangers which encompassed them from the Indian tribes. Each of these colonies, except Warwick, had a quasi government, which served the purpose until a charter was obtained. The colonies of Plymouth, Massachusetts, Connecticut and New Haven were entering into a confederacy, as the "United Colonies," for mutual protection, and into the league the Rhode Island colonies were not invited. In such a state of affairs it became important that they should have some government recognition, and in 1643 Williams was sent to England to procure, if possible, a charter. In 1644 he returned, having been successful in his mission. The insertion in this sketch of the charter, of which the following is the text, seems essential to a clear understanding of the foundations on which the constitutional history of Rhode Island rests.

"WHEREAS by an ordinance of the Lords and Commons now assembled in Parliament bearing date the second day of November, Anno Dom 1643 Robert Earl of Warwick is constituted and ordained Governor in chief and Lord High Admiral of all those islands and other plantations inhabited and planted by or belonging to any of his Majesties the King of Englands subjects (or which hereafter may be inhabited and planted by or belonging to them) within the bounds and upon the coasts of America. And whereas the said Lords and Commons have thought fit and thereby ordained that Phillip Earl of Pembroke, Edward Earl of Manchester, William Viscount Say and Seale, Phillip Lord Wharton, John Lord Roberts, members of the House of Peers, Sir Gilbert Garard baronet, Sir Arthur Helssigge baronet, Sir Henry Vane Junior Knight, Sir Benjamin Rudyard, Knight, John Pim, Oliver Cromwell, Dennis Bond, Miles Corbett, Cornelius Holland Samuel Varrall, John Rolle and Wm. Spurstone Esquires members of the House of Commons should be Commissioners to join in aid and assistance with the said Earl.

"And whereas for the better governing and preserving of the said Plantations it is hereby

ordained that the aforesaid Governor and commissioners or the greater number of them shall have power and authority, from time to time, to nominate appoint and constitute all such subordinate Governors, Counselors, Commanders officers and agents as they shall judge to be best affected and most fit and serviceable to govern the said Islands and Plantations, and to provide for, ordain and dispose all things which they shall from time to time find most fit and advantageous for the said Plantation and for the better security of the owners and inhabitants thereof to assign, ratify and confirm so much of their aforementioned authority and power and in such manner and to such persons as they shall judge to be fit for the better Governing and preserving of the said Plantations and Islands from open violence prejudice disturbance and distractions. And whereas there is a tract of Land in the Continent of America aforesaid called by the name of the Narragansett Bay bordering North and Northeast on the Patent of the Massachusetts, East and Southeast on Plymouth Patent, south on the ocean and on the west and northwest by Indians called Nahoggansucks alias Narragansetts; the whole tract extending about twenty and five English miles into the Pequot river and country, and whereas divers well affected and industrious English inhabitants of the Towns of Providence, Portsmouth and Newport in the tract aforesaid have adventured to make a nearer neighborhood and society to and with the great body of the Narragansetts which may in time by the blessing of God upon their endeavors lay a secure foundation of happiness to all America, and have also purchased and are purchasing of and amongst the said Natives some other places which may be convenient both for plantations and also for building of ships, supply of stores and other merchandise, And whereas the said English have represented their desires to the said Earl and Commissioners to have their hopeful beginnings approved and confirmed by granting unto them a free Charter of civil incorporation and Government that they may ordain and govern their plantations in such manner as to maintain justice and peace both amongst themselves and towards all men with whom they shall have to do; In due consideration of the Premises the said Robert Earl of Warwick Governor in Chief, Lord High Admiral of the said Plantations and the greater number of the said Commissioners whose names and seals are hereunder written and subjoined out of a desire to encourage the good beginnings of the said Plantations do by the authority of the aforesaid ordinance of Lords and Commons give grant and confirm to the aforesaid inhabitants of the Towns of Providence, Portsmouth and Newport a free and absolute Charter of civil incorporation to be known by the name of the Incorporation of Providence Plantations in the Narragansett Bay in New England together with full power and authority to govern and rule themselves and such others as shall hereafter inhabit within any part of the said tract of Land by such a form of Civil Government as by voluntary consent of all or the greatest part of them shall be found most serviceable in their Estates and condition, and to that end to make and ordain such civil laws and constitutions and to inflict such punishments upon transgressors and for execution thereof so to place and displace officers of Justice as they or the greatest part of them shall by free consent agree unto. Provided nevertheless that the said Laws Constitutions and Punishments for the civil Government of the said Plantation be conformable to the Laws of England so far as the nature and constitution of the plan will admit; And always reserving to the said Earl and Commissioners and their successors power and authority so to dispose the General Government of it as it stands in reference to the rest of the Plantations in America as they shall *communicate* from time to time most conducing to the General good of the said Plantations the Honor of his Majesty and the service of the state, and the said Earl and Commissioners do further authorize the aforesaid Inhabitants for the better transacting of their Public affairs to make and use a Public seal as the known seal of Providence Plantations in the Narragansett Bay in New England, in Testimony whereof the said Robert Earl of Warwick and Commissioners have hereunto set their hands and seals the seventeenth day of March the nineteenth year of the reign of our Sovereign Lord King Charles and in the year of our Lord God 1643.

ROBERT WARWICK

Phillip Pembroke, Say & Seale, P. Wharton, Arthur Helsrige, Cor Holland, Hen Vane, Sam Varrell, John Rool, Miles Corbet."

The colony of Warwick was not included in the above charter, but the grantees in the other two colonies admitted it to a participation in its privileges. Samuel Gorton, the founder of that colony, was a remarkable man, and to him, perhaps,

next to Roger Williams, the state of Rhode Island must look as its most prominent early benefactor. Like Williams, his previous association with the Massachusetts and Plymouth colonies had been an unpleasant one. He had first joined the Portsmouth colony on the island of Rhode Island, but, becoming offensive to its authorities, was banished and removed to Providence, where he was no less a disturbing element. He then, with eleven companions, bought a tract of land of Meantinomi in October, 1642, and founded Warwick. There he came in collision with the neighboring Massachusetts authorities, and, being captured, was tried for heresy and condemned to imprisonment. On his release he retired to Portsmouth, where, notwithstanding his former unpleasant connection with that colony, he was kindly received as a victim of persecution. After the issue of the charter he resumed the undertaking of establishing the colony at Warwick. A recent biographer has denominated Gorton "a forgotten founder of our liberties," and claims that "to him more than to any other man is Rhode Island indebted for the recognition and establishment of the principle that English law and the rights of English citizenship are co-extensive with English supremacy."

The charter of 1647 was granted by the Long Parliament while that body was in hot contest with Charles, and was probably more liberal in its provisions than one would have been framed under the royal eye. It gave the colonists full power to frame such a government as the majority might elect, to enact laws, to inflict punishments, and to appoint officers of justice, with the single restriction that their acts should be conformable to the laws of England. Even this restriction was modified by the additional words, "so far as the nature and constitution of the plan will admit." In the modification, which was evidently inserted as an amendment, it is not difficult to discover the shrewd hand of Williams.

In consequence of a protest made by the Plymouth colony against an occupancy under the charter of lands claimed by that colony, the charter lay in abeyance until May, 1647.

Efforts were made by the Puritan colonies not only to disturb the ownership of their lands, but after the issue of their charter to seek its invalidation. It seemed to be quite time that the charter should be accepted and put in force. A general assembly of the people was held in the above month, at Portsmouth, and after adopting the charter it proceeded to organize a government. The assembly was intended to be and was practically a meeting of the whole people, and the initial steps taken to build up a government display something more than ordinary statesmanship. The assembly first chose John Coggeshall moderator, and lest there might be withdrawals from the assembly sufficient to defeat its objects, it was voted in case any should depart, the number of forty remaining "might act as if the whole were present, and be of as full authority." It was then agreed "that all should set their hands to an engagement to the charter," and a code of laws was adopted to which a preamble was prefixed declaring that "since our charter gives us power to govern ourselves and such others as come among us, and by such a form of civil government as by the voluntary consent of all, or the greater part of the free inhabitants, shall be found most suitable to our estate and condition; it is agreed by this present assembly thus incorporate and by this present act declared that the form of government established in Providence Plantations is Democratical, that is to say a government held by the free and voluntary consent of all or the greater part of the free inhabitants."

Proceeding to the choice of officers under the charter, John Coggeshall was chosen president, and Roger Williams, of Providence; John Sandforth, of Ports-

mouth; William Coddington, of Newport, and Randal Holden, of Warwick, assistants; William Dyer, general recorder, and Jeremy Clarke, treasurer. The code of laws adopted was an elaborate one enacted, as the assembly declared, "to the end that we may give, each to others (notwithstanding our different consciences touching the truth as it is in Jesus, whereof, upon the point we all make mention) as good and hopeful assurance as we are able, touching each man's peaceable and quiet enjoyment of his lawful right and liberty." It is, of course, too long to be inserted in this narrative. At this meeting of the assembly a method was prescribed for the passage of general laws. A law was first to be discussed in the town where its suggestion originated, and, if accepted, was to be sent to the other towns, and after their action upon it, was to be handed to a committee of six men from each town, which should constitute a General Court. If this court found that a majority had concurred in the passage of the law, it was promulgated and to stand in favor until the next General Assembly of the whole people, by whom it might be either annulled or continued. Thus a law before its enactment was sure to be the voice of the people, and not as in these days the voice of perhaps a small minority whose bluster and noise are often mistaken by legislators as indications of the popular will. The General Court could also originate legislation by agreeing on a law and then sending it to each town where action was to be reported to the General Recorder. The president of the colony could then count the votes, and if a majority be found in favor of the law, it would stand until the next General Assembly by whom it might be rejected or approved.

It was also provided in the Code that there "shall be erected a General Court of Trials for the whole colony, and general officers for the administration of Justice therein." This court was to be held twice in the year, in case there should be matters to be heard, and to have jurisdiction over crimes "involving life, limb, disfranchisement or banishment, and such trespasses, debts and differences as by the Common Council either of town or towns shall be judged too weighty for a more private determining; also differences between towns or between parties dwelling in two towns more remote, or in case of an arrest of a man belonging to a neighboring colony, and also attaints of inquests, and trials of perjuries, and, finally, all such matters as are not referred by any charter or order unto any town apart or to the island or two towns jointly."

The officers of the colony were to be a president, four assistants, one from each town, a general recorder, a public treasurer and a general sergeant, chosen yearly by the General Assembly. The president and assistants were to serve as justices in the towns where they lived, with power to bind offenders over to the court for trial. The president was to sit as the chief judge in the colony courts of trial, and the general sergeant was the sheriff, to see that sentences were executed. The assistants were to sit with the president in the trial courts, and were to act as coroners in their respective towns. The general recorder was to keep a copy of the acts of the General Assembly and of the courts, rolls of freemen, transfers of land, wills and inventories, records of town boundaries, highways, etc., and was to act as court clerk. Of course the impanelling of jurors for trials was provided for. The code was intended to comply with both the letter and spirit of the charter, and any enactment in contravention of that instrument could be declared by the court null and void. The charter was the constitution of the colony, but so elastic in its requirements that all ordinances must conform to English laws, so far as the "nature and constitution of the place will permit," that it was not difficult for the court to set up the peculiar exigencies of the colony against the claim of counsel in a trial that the law, whose violation was charged, was not in conformity with the laws of England.

The career of the colony under the charter of 1643 was far from being a serene and tranquil one. Its integrity was threatened by the Massachusetts colony; Indian wars still threatened, the United Colonies persisted in their refusal to admit the colony to its league, and, what was worse than all, William Coddington, who was working surreptitiously in England, received a commission April 3, 1651, from the Council of State as governor for life of the islands of Rhode Island and Conanicut. Under his commission he was to rule with a council of six, and, so far as those districts were concerned, the charter of the colony was abrogated. In October, 1651, Williams was sent to England to secure, if possible, a confirmation of the charter, and he was accompanied by Dr. John Clarke as the agent of the towns on the island, to ask the revocation of Coddington's commission. The mission of Williams and Clarke was successful. The commission of Coddington was revoked, and the following letter was received from Cromwell by the officers of the colony confirming the charter.

"To our trusty and well beloved the President, Assistants and Inhabitants of Rhode Island, together with the rest of the Providence Plantations in the Narragansett Bay in New England.

"Gentlemen :

"Your agent here hath represented unto us some particulars concerning your government, which you judge necessary to be settled by us here. But by reason of the other great and weighty affairs of the Commonwealth we have been necessitated to defer the consideration of them to a further opportunity; for the mean time we were willing to let you know that you are to proceed in your government according to the tenor of your Charter, formerly granted on that behalf; taking care of the peace and safety of those plantations, that neither through any intestine commotions, or foreign invasions there do arise any detriment or dishonor to this Commonwealth or yourselves, as far as you, by your care and diligence can prevent, and as for the things which are before us they shall as soon as the other occasions will permit, receive a just and fitting determination. And so we bid you farewell and rest.

"Your very loving friend,

"OLIVER P."

But notwithstanding the confirmation of the charter and the revocation of Coddington's commission harmony was far from prevailing in the colony. Freedom of conscience had led in the minds of some to a claim of the right of private judgment as to obedience to civil law, and such a dogma if widespread could not fail to honeycomb the whole frame of government. In suppressing it the ability of Williams was called into play and was favorably exercised. The island towns claimed too the right of reorganizing the colony after the confirmation of its charter on the ground of their superior numbers and wealth. Resistance to this claim led to the formation of two assemblies and practically two governments, and no reconciliation was effected until August, 1654. On the 31st of that month a full court of commissioners met at Warwick and a reunion was effected. But the time was not far distant when still greater uneasiness than the colony had heretofore experienced would be felt concerning the fate of its charter. It had been granted in 1643 by Parliament when that body was at war with Charles and had been later confirmed by Cromwell. The Protector died September 3, 1658, and after a short protectorate under his brother Richard, Charles the Second landed in England on the 25th of May, 1660. Would Charles respect the rights acquired by the colony under such circumstances, or would he vacate the charter and thus destroy the civil structure which had been built up under it? This was the question which agitated the colony.

John Clarke, who had been in England some years acting as the agent of the colony, had not returned, and on the 18th day of October, 1660, a formal commission was sent to him by the General Court to act in its further behalf at the royal Court.

Clarke was successful in the execution of his commission and obtained a new charter from the King, which passed the seals July 8, 1663. The charter was received with great rejoicing, and it is recorded that on the 24th day of November, 1663, "the Assembly being legally called and orderly met for the solemn reception of his Majesties gracious letters patent unto them sent and having in order thereto chosen the President Benedict Arnold Moderator of the Assembly it was voted that the box in which the King's gracious letters were enclosed be opened and the letters with the broad seal thereto affixed be taken forth and read by Captain George Baxter in the audience and view of all the people; which was accordingly done and the said letters with his Majesties Royal Stamp and the broad seal, with much becoming gravity held up on high and presented to the perfect view of the people and then returned into the box and locked up by the Governor in order to the safe keeping of it."

The space allotted to this narrative will only permit a reference to the important features of the charter. It provided that "no person within the said colony at any time hereafter shall be any wise molested, punished, disquieted or called in question for any differences in opinion in matters of religion, and do not actually disturb the civil peace of our said colony." It further provided that there should be one governor, one deputy-governor and ten assistants. and that the name of the colony should be "The Governor and Company of the English Colony of Rhode Island and Providence Plantations in New England in America." The governor and assistants for the first year were named to hold office until the first Wednesday of May, 1664, when their successors were to be chosen out of the freemen of the colony. The governor, and in his absence the deputy-governor, the assistants and a specified number of delegates chosen by the various towns were to constitute a General Assembly, with power to constitute such offices, choose such officers, grant such commissions as they might think fit, and to make laws not repugnant to the laws of England, considering the nature and constitution of the place and people; and also to establish courts, to regulate elections, and create and establish the boundaries of towns and cities.

The charter defined the bounds of the colony as—

"All that part of our dominions in New England in America containing the Nahantick and Nanhyganset alias Narragansett Bay and countries and parts adjacent bounded on the west and westerly to the middle or channel of a river there commonly called and known by the name of Pawcatuck alias Pawcawtuck river and so along the said river, as the greater or middle stream thereof reacheth or lies up into the north country, northward unto the head thereof, and from thence by a straight line due north until it meets with the south line of the Massachusetts colony; and on the north or northerly by the aforesaid south or southerly line of the Massachusetts colony or Plantation, and extending towards the East or Eastwardly three English miles to the East and Northeast of the most Eastern and Northeastern parts of the aforesaid Narragansett Bay as the said bay lyeth or extendeth itself from the ocean on the South or Southwardly unto the mouth of the river which runneth towards the Town of Providence and from thence along the Eastwardly side or bank of the said River (higher called by the name of Seekonk River) up to the falls called Patuckett falls being the most westwardly line of Plymouth Colony, and so from the said falls in a straight line due north untill it meet with the aforesaid line of the Massachusetts Colony, and bounded on the south by the ocean; and in particular the lands belonging to the towns of Providence, Pawtuxet, Warwick, Misquammacock alias Pawcatuck and the rest upon the main land in the tract aforesaid, together with Rhode Island, Block Island, and all the rest of the islands and banks in the Narragansett Bay and bordering upon the coast of the tract aforesaid (Fisher's Island only excepted)."

Without a further description of the charter, it is sufficient to say that it contained a full confirmation of the rights of self-government acquired under the char-

ter of 1643. It has been stated by an eminent authority that the Charters of Rhode Island and of Connecticut were exceptions to the general rule that in England only one of the three co-ordinate parts of government, the legislative, executive and judicial, represents the authority of the people, inasmuch as they permitted all the officers in these three departments to be chosen by the people, while all other provincial charters in America conformed to the English theory. This is undoubtedly true if the comparison be confined to strictly provincial charters, but the Rhode Island charter should rather be compared with the colonial charter of Massachusetts and the patent of the Plymouth colony, given by authority of a royal charter, both of which permitted to the people the exclusive right to govern, and really established as fully as the Rhode Island charter a pure democracy.

All the boundaries of Rhode Island named in the charter, except that of the ocean on the south, have been in dispute, that of Connecticut on the west, of Massachusetts on the north and of Plymouth colony on the east. All of these controversies were amicably settled, but that of the Plymouth colony, which inherited by the province of Massachusetts Bay and later by the commonwealth of Massachusetts, was not definitely disposed of until 1861, after a duration of nearly two hundred years. A concise statement of the grounds of the controversy may not be out of place in this narrative. The patent issued to the Plymouth colony in 1629 established a line running from a point in Massachusetts Bay, between the two present towns of Scituate and Cohasset, to Narragansett, now Providence river, thence down Narragansett Bay through Secomet river to the ocean, and so through the Vineyard Sound round Cape Cod to the point of beginning.

The Rhode Island charter defined as the eastern boundary of Rhode Island a line extending from Providence river "towards the East or Eastwardly three English miles to the East and Northeast of the most Eastern and Northeastern parts of the aforesaid Narragansett Bay as the said Bay lieth and extendeth itself from the ocean." Rhode Island claimed under its charter that Mount Hope Bay was a part of Narragansett Bay, and consequently that the point three English miles to the northeastern part of that bay was in the neighborhood of what is now called "Myricks" on the railroad running from Taunton to New Bedford. Thus the territory claimed by Rhode Island embraced Freetown, Fall River, Tiverton, Little Compton, Berkeley, Dighton, Warren, Bristol, Barrington, Somerset, and parts of Swansea and Rehoboth, all of which was claimed by the Plymouth colony as included in its patent. The disputed territory was considered a part of the Plymouth colony and had been governed by her laws. When that colony was divided in 1685 into the three counties of Plymouth, Barnstable and Bristol, it was included in Bristol county and the town of Bristol was made the shire town and gave the county its name. When the commissioners of Clarendon were in New England in 1665 Rhode Island presented to them a claim to its jurisdiction founded upon its charter. The commissioners reported to the secretary of state that the Plymouth claim was valid and established Narragansett Bay as the boundary between the two colonies "till his Majesty's pleasure should be known." The controversy went on until 1740, when a royal commission was appointed, consisting of Cadwallader Colden, Abraham Van Horn, Philip Livingston, Archibald Kennedy and James DeLancey, of the province of New York; John Hamilton, John Wells, John Reading, Cornelius Vanhorn and William Provost, of the province of New Jersey; and William Shene, William Shireff, Henry Cope, Erasmus James Phillips and Otho Hamilton, of the province of Nova Scotia, with power to make a final determination of the whole matter. On the part of Rhode Island, Henry Ball, Daniel Updike, James Hunneman, Jr., Peter

Bours, Thomas Ward and Stephen Hopkins, appeared as managers, and on the part of Massachusetts, William Dudley, Samuel Wells, Benjamin Lynde, Jr., Nathaniel Hubbard, Major Wrenn, Thomas Cushing, Col. John Chandler, Dr. Haile and Captain Watts. Subsequently, John Read, William Shirley, Robert Auchmuty and Christopher Kelley were added on the part of Massachusetts, and Samuel Clark, Thomas Spencer, Daniel Abbot and William Jencks on the part of Rhode Island.

The commissioners met at Providence, April 1, 1741, and after a survey had been made the case was opened on the 3d of June. On the part of Massachusetts the Plymouth patent was submitted as evidence to establish her claim, but though it clearly covered the disputed territory, it was not sufficient to invalidate the royal charter of Rhode Island.

On the 30th of June the commissioners pronounced their decision excluding Mount Hope Bay from Narragansett Bay, and giving to Rhode Island a strip of territory three English miles wide along Narragansett Bay and Seconnett river to the ocean, including the Attleboro Gore, which was afterwards incorporated as the town of Cumberland, after William Duke, of Cumberland, who had recently fought the battle of Culloden; the whole of Bristol, parts of Swansey and Barrington, which were afterwards incorporated as the town of Warren, after Sir Peter Warren, an admiral in the navy, and the whole of Tiverton and Little Compton. For reasons which it is not necessary to rehearse, some features of the royal Commissioners' line continued in dispute and repeated efforts were made to reach a settlement. In the meantime Fall River, in Massachusetts, had extended its population across the line into Rhode Island, and North Providence (or Pawtucket in Rhode Island) had extended across the line into Massachusetts. Finally, in 1860, under the eminently wise management of Stephen H. Phillips, the attorney-general of Massachusetts, and his associate, John H. Clifford, acting for the commonwealth, and Charles S. Bradley with Thomas A. Jenckes, acting for Rhode Island, the long-lived controversy was satisfactorily terminated, the main features of the settlement being the annexation of Pawtucket and a part of Seekonk to Rhode Island, and of that part of Fall River which was in Rhode Island and a part of Tiverton to Massachusetts. The settlement was confirmed by a decree of the court and went into effect March 1, 1862.

Under the provision of the charter authorizing the General Assembly to establish courts it was agreed that two general courts of trials should be held at Newport in May and October of each year, and that the courts should consist of the Governor, Deputy Governor or either of them with at least six assistants. Two other courts were to be held annually, one at Warwick, in March, and one at Providence, in September, composed of at least three assistants and a jury of twelve men, from which appeals might be taken to the General Courts. Special Courts might be called at the request and expense of any person with the sanction of the Governor or Deputy Governor, in which the Governor, Deputy Governor, or either of them, and at least three assistants should sit. It was also voted that all laws in force under the old charter continue in force until otherwise ordered, except those inconsistent with the new charter, such as that giving town meetings authority to repeal acts of the General Assembly which were declared null and void. It was also provided that each town should have authority to appoint a day of election of town officers, and to choose town counsel men, not exceeding six, including the assistants in the town and also a clerk, treasurer, constable and sergeant.

It has before been stated that the charter provided that the Governor and assistants and a specified number of delegates chosen by the town should constitute the

General Assembly. Thus apparently a single legislative body was intended to be organized, but in direct contradiction of this provision an order was passed in 1666 for the Governor and assistants to form a legislative body distinct from that of the delegates, the two sitting in separate chambers and each having a negative on the other. This action was taken in response to a petition from the towns of Portsmouth and Warwick, and was probably thought to be within the instructions of the charter on the theory that the General Assembly included two houses instead of one as a Congress is composed of a Senate and House.

After the establishment by the laws of 1666 of two branches of the General Assembly which was not completely brought about until May 6, 1696, the charter continued as the constitutional guide of Rhode Island during its provincial existence. It was broad enough to cover the foundations of the state and elastic enough to meet the varied growing wants of its superstructure. The judicial system was gradually perfected, towns were incorporated, the character of their government fixed and the qualification of freemen, the electors of the state, determined. The charter as it happened was granted at a favorable time, for it is undoubtedly true that under the hand of James the Second its conditions would have been more rigid than those prescribed by Charles. The charter of the province of Massachusetts Bay granted by James in 1691, required all laws to be not only conformable to the laws of England, but also to be referred to the King in Council for rejection or approval. Under the Rhode Island Charter the action of the Assembly was final in the passage of laws, and the Assembly being a judicial as well as a legislative body its enactments were of course *ipso facto* constitutional.

On the establishment of a superior court of jurisdiction of assize and general jail delivery in 1747, a complete separation between the legislative and judicial branches was effected. After the above date the governor and council continued to be the appellate court of probate. There were no counties incorporated until 1703, and on the 22nd of June in that year Newport and Providence counties were established. Washington county was incorporated June 16, 1729; Bristol county February 17, 1746-7, and Kent county June 11, 1750. The counties in Rhode Island have no distinctive feature except that courts are held at the shire towns and offences committed within the several counties must be tried within said counties. There are no officers having control of county affairs, and all county expenses are regulated by the General Assembly. In 1731 a Colony House was built in Providence, and having been burned December 24, 1758, was replaced by a new one in 1759 which is the present State House on Benefit Street. A Colony House was built in Newport in 1738-9, and is the State House now standing in that city.

In 1678 an attempt was made to recognize the revisory power of the assembly over the proceedings of the General Court of Trials. In the case of Sandford against Foster, the defendant petitioned the assembly for a reversal of judgment, and, in answer to the petition, it was voted that "this assembly conceive that it doth not properly belong to them, or any wise within their recognisance, to judge or reverse any sentence or judgment passed by the General Court of Trials according to law, except capital or criminal cases or ~~mulets~~ or fines." But in direct contradiction of this opinion, two years later, in 1680, it was voted by the assembly "that in all actional cases brought to the General Court of Trials, if either plaintiff or defendant be aggrieved after judgment entered in court, they may have liberty to make their appeal to the next General Assembly for relief, provided such appeal be made in the recorder's office, ten days' time after judgment entered as aforesaid." At various times courts adapted to the exigencies of the people and of new counties were estab-

lished, such as Courts of Common Pleas, Chancery or Equity Courts, Superior Courts and Prize Courts, but a description of them seems to be beyond the domain of constitutional history.

As the elective franchise and the right to sit as members of the assembly and council were confined to freemen, it becomes necessary to learn who the freemen were at various periods under the charter. In the earlier years it was the practice to admit as freemen those whose names were sent in by the clerks of the various towns. In 1670 it was ordered "that such persons as were qualified for public service in holding offices should be made freemen by their respective towns, whether they desired it or not," and such persons as were made freemen of the towns were admitted by the assembly as freemen of the colony. In 1724 an act was passed by the assembly, providing "that from and after the publication of this act no person whatsoever shall be admitted a freeman of any town in this colony unless the person admitted be a freeholder of lands, tenements or hereditaments, in such town where he shall be admitted free, of the value of one hundred pounds, or to the value of forty shillings per annum, or the eldest son of such a freeholder, any act, custom or usage to the contrary hereof notwithstanding." In 1729 another act was passed, providing "that no person whatsoever shall be admitted a freeman of any town in this colony unless the person admitted be a freeholder of lands, tenements or hereditaments, in such town where he shall be admitted free, to the value of two hundred pounds or ten pounds per annum, or the eldest son of such a freeholder. And if it be made to appear that any such freedom has been obtained through any fraudulent means or contrivance, such freedom shall and is hereby made void." In 1742, in consequence of the belief that many persons by fraud became freemen who were not possessed of the necessary estate, and because many persons continued to act as freemen after they had disposed of their estates, it was enacted "that from and after the publication of this act, no person whatever in the colony shall be permitted to vote or act as a freeman in any town meeting in this colony, or at the general election, but such only who at the time of such their voting or acting as freemen, are really and truly possessed of lands, tenements or hereditaments, lying in the colony, at the full value of two hundred pounds or ten pounds per annum, being their own freehold estate, or the eldest son of such a freeholder." In 1746 the qualification was fixed at four hundred pounds or twenty pounds per annum, in consequence of a depreciation in the currency, and in 1762 it was reduced to forty pounds or forty shillings per annum. In 1798 it was fixed at one hundred and thirty-four dollars or seven dollars per annum, and this qualification remained until the adoption of the Constitution in 1843. Thus, by these various enactments, the democratic principle which permeated the charter was eliminated. They illustrated in a striking manner the necessity, experienced by all reformers, of regulating the operation of attractive theories by means of a practical balance wheel. Large numbers of emigrants were finding their way into the colony, faster than its digestive powers could assimilate them, and there was danger that the machinery of its government would be at least disturbed, if not disastrously clogged.

While the process of evolution was satisfactorily going on another cloud rose above the horizon, threatening greater disasters to the colony than any yet experienced. A movement was made in England by Edward Randolph to destroy the liberty of the colonies. He complained of irregularities in Rhode Island, and urged the revocation of its charter. James the Second had come to the throne in 1685, and an address was prepared asking a continuance of royal favor. This was, however, of no avail. Articles of misdemeanor were prepared by Randolph, and writs of *quo warranto* were issued against "the Governor and Company of the English Colony

of the Rhode Island and the Providence plantations in New England in America," requiring their appearance before his majesty "to answer by what warrant they claimed to have and use divers liberties and franchises within the said Colony." This writ was issued October 6, 1685, and two days later a president and council were appointed to govern Massachusetts, New Hampshire, Maine and King's province, the latter being the Narragansett country adjacent to Connecticut. Joseph Dudley was commissioned president, and Edward Randolph secretary. The charter was suspended, and for a time the colony was dissolved into its original elements. Dudley established new courts, changed the boundaries of the colony, and altered the names of some of the towns. His government was, however, a provisional one, and of short duration. On the 20th of December, 1686, Edmund Andros arrived in Boston, having a commission as governor of New England, and soon after demanded the charter of Rhode Island. That important document was, however, concealed by Governor Clarke, and never surrendered, and is now hanging in the office of the secretary of state in Providence. Andros established new courts, and with the aid of nineteen councillors appointed by himself, five of whom were from Rhode Island, he assumed the government of entire New England. He declared all public lands vested in the king, and required owners of estates to prove their titles. His reign was despotic in the extreme, but came to an end after the expiration of two years, an end which was also an end of his ambition, and an end of the miseries of the colonies. When the news of the revolution of 1688, and of the accession of William and Mary, reached Boston, Andros was arrested and shipped off to England, and the suspension of the charter of Rhode Island was terminated. Taken in connection with the charter of 1643, of which it was practically a supplement and confirmation, its career had been through a sea of troubles. Granted originally by the Long Parliament, confirmed by the Protector, surviving the jealousies of neighboring colonies, re-established by the second Charles, escaping by concealment surrender to Andros, and, after a period of suspended animation, re-appearing as the old constitutional guide of the colony, it was destined now to a prolonged life of quiet and peace.

On the resumption of the charter the colony acted with spirit. Andros during his reign had established a Superior Court of Judicature, and appointed Dudley chief justice. Dudley endeavored to hold his office, and when endeavoring to open his court in Rhode Island he was arrested and imprisoned. The freemen of Rhode Island were called together to consider public affairs, and a movement to resume the charter was met with opposition by some who called for a general government by appointment of the king. An overwhelming vote, however, was passed for resumption, and all the laws superseded in 1686 were once more put in force. The legality of the resumption of the charter government was brought before the king, who approved it on the ground that it had only been suspended and not revoked.

In the early part of the reign of William and Mary, while Rhode Island was congratulating herself that she would continue to enjoy the privileges of her charter, the colonies of Plymouth and Massachusetts were passing through the agonies of dissolution and the throes of a new birth. The Massachusetts Colony charter had been vacated in 1684, and agents were sent to England to secure a new one from the reigning dynasty. Plymouth Colony had never had a charter, and an agent was sent by her also to endeavor to procure one. Governor Slauter, of New York, to which province Martha's Vineyard and Nantucket belonged, was also near the court seeking the annexation of the Plymouth Colony to his domain. All were disappointed. A charter was granted to the province of Massachusetts Bay, of which the Plymouth Colony was to form a part, but with an exchange of her liberties

under the old charter, for a government whose executive was to be the creature of the crown, and whose laws were to be referred to the king in council for rejection or approval. Governor Slaught not only failed to annex Plymouth Colony to New York, but the Vineyard and Nantucket were taken from him and made parts of the Massachusetts Province.

But though the disturbing influences which had terminated the life of the Plymouth Colony and changed the character of the Massachusetts government had appeared to subside, the people of Rhode Island were constantly in dread of some disaster to themselves.

The commission of Dudley, who became governor of the Massachusetts province in 1703, empowered him to command the militia of Rhode Island. And he went to Newport and made a demand on the governor and council for the transfer. They refused to comply with his order except by direction of the assembly, which was not in session. In the Narragansett Country, or King's Province, which was that territory lying adjacent to Connecticut, he took command of the militia and received their oaths. He claimed also, under his commission, to exercise jurisdiction in Rhode Island as vice-admiral, and a conflict arose between Governor Cranston, who had issued commissions to armed vessels, and Nathaniel Byfield, the judge of admiralty, who refused to condemn prizes captured by Rhode Island privateers. He wrote to the Board of Trade in England, "I do my duty to acquaint your lordships that the government of Rhode Island, in the present hands, is a scandal to her majesty's government. It is a very good settlement, with about two thousand armed men in it, and no man in the government of any estate or education, though in the province there be men of very good estates, ability and loyalty; but the Quakers will by no means admit them to any trust, nor would they now accept it, in hopes of a dissolution of that misrule, and that they may be brought under her majesty's immediate government in all things, which the major part by much of the whole people would pray for, but dare not, for fear of the oppression and affront of the Quakers' part making a noise of their charter." He declared the colony to be "a perfect receptacle of rogues and pirates." He complained "that not only would the Rhode Islanders with Massachusetts between them and harm, contribute neither men nor money to the war, but that they harbored and hid deserters from the cause. While I am here in Massachusetts at twenty-two hundred pounds per month charge, the colony of Rhode Island hath not had a tax of one penny in the pound this seven years, which makes her majesty's subjects of this province very uneasy under their charge and service in the field, while other of her majesty's subjects sleep in security and smile at our laws and charge, which are an equal service to themselves." The Board of Trade drew up charges, which were served by Dudley on the authorities of Rhode Island, and on the basis of proof adduced to sustain them, the attorney and solicitor-general advised the queen to appoint a governor for the colony. Had such an appointment been made, it is probable that the channel of Rhode Island history would have been radically changed. But the war between England and France drew the attention of the home government away from colonial affairs, and again did Rhode Island escape a mortal blow to her liberties.

In connection with the formation of towns which may be properly considered as an incident of constitutional history, some reference should be made to the probate laws of Rhode Island, which confided certain probate duties to town officers. In 1647, under the charter of 1643, it was provided that an inventory of the estate of a deceased person should be handed in to the head officer of the town within one month with the will, and after being proved by the head officer, to whom should belong the

probate of wills, it was with the will to be passed to the general recorder for permanent record. In the case of an intestate the head officer of the town together with the town council were to appoint some person to bring in an inventory, and then distribute the estate among those to whom it legally belonged. In 1674, under the charter of 1663, it was provided that the probate of wills shall be in the town councils instead of the head officers of the town, that official being extinct under the new charter. No change was made in the probate laws while the charter government of Rhode Island existed. At the present time there are regular Probate Courts with judges and clerks in the following towns and cities: Bristol, Central Falls, Cranston, East Providence, Johnston, Lincoln, Newport, North Providence, Pawtucket, Providence and Woonsocket. In the other towns in the state the town councils, corresponding to the boards of selectmen in Massachusetts, constitute the Probate Courts in those towns, as they did under the charter.

The methods of town government were provided for soon after the issue of the charter of 1663. The first revision of the statutes, made in 1719, contains a law on the subject which was probably enacted many years before. It provided that every town should annually, on some day fixed by the freemen of the town, choose six good and sufficient freeholders, who, with such assistants, justices of the peace and wardens as shall dwell in the town, together with the governor and lieutenant-governor in the towns where they reside, should form a town council to manage the affairs of the town. They were required also to choose justices of the peace, a town clerk, treasurer, sergeant, packer of beef and pork, sealer of weights and measures, constables, rate-makers, overseers of the poor, surveyors of highways, and fence-viewers. They were further required to admit freemen, a list of whom the clerk was required to send to the Assembly the day before a general election, to be recorded by the colonial recorder. If a town neglected to hold an election it was to be presented by the grand jury to the General Court of trials, and be held liable to pay a fine of five pounds. The town meetings were regulated by a moderator chosen by the town, and he was sometimes rather despotic in his office. The revision of 1730 contains a provision that the moderator shall put a vote when called on by seven freemen, or subject himself to the penalty of a suspension and a fine of forty shillings. In that revision the clerk was required to issue warrants for town meetings, and no vote concerning appropriations of money, or concerning land or rates, could be acted on unless notified in the warrant. In the same revision a law is found providing that "whereas it is very common in this colony, and especially in Westerly and South Kingston, for Indians to make dances which have been found prejudicial to the adjacent inhabitants, by their excessive drinking and fighting and wounding each other, and many servants are enticed to out-stay their time at such dances, and then run away from their masters, it is enacted that town councils of such towns shall have full power to make laws for regulating of Indian dances, and to fine all, either English or Indians or others, that shall sell strong liquors at such dances, not exceeding forty shillings." The revision of 1745 contained the same provisions relating to towns as that of 1730. The revision of 1767 provided for the election of a vendue-master, three rate-makers, a collector of taxes, and that the town councils should regulate the "assize of bread," post common drunkards, take bonds of tavern-keepers, bind out poor children, issue licenses, and make regulations concerning oysters. The revision of 1798 provided that the town council should consist of not less than three nor more than seven, and the assessors not less than three nor more than thirteen, that the council should appoint one or more persons to superintend the building of chimneys and the placing of stoves and stove-pipes. The revisions of 1822, 1844, 1857, 1872, 1882 and 1891

contain practically the same provisions with a few additions and changes. It seems to have been always a custom in Rhode Island, allowed by law, to choose town officers by a hand or *viva voce* vote unless otherwise ordered, but if it is moved and seconded by any freemen to choose by ballot, the moderator must so require.

Up to the Revolutionary period little remains to be narrated belonging strictly to the constitutional history of Rhode Island. The first real demonstration of opposition to the acts of Parliament concerning its colonies in America, occurred in July, 1764, to protest against the passage of the proposed Stamp Act. A special assembly was called and a committee was appointed to confer with the other colonies concerning the sugar duties and to prevent the passage of the stamp act or the laying of any other tax upon the colonies inconsistent with their rights. On the 27th of February, 1765, the Stamp Act passed the House of Commons, the House of Lords on the 8th of March and was signed by the king on the 22d of that month. In September the assembly, holding its session at East Greenwich, adopted the most positive resolutions suggesting, perhaps more forcibly than those of other colonies, a dissolution of allegiance to the crown as the true remedy for existing grievances. They denied the right of any power but the General Assembly to levy taxes on the colony and absolved the people from obedience to any law designed for that purpose, originating from any other source. Delegates were chosen to a congress of the colonies to be held in New York, and the officers of the colony were directed to proceed as usual in the execution of their trusts, the assembly agreeing to hold them harmless. Before the Stamp Act went into effect all the royal governors took the oath to sustain it, but Governor Samuel Ward, of Rhode Island, stood alone, firm in his refusal. On the 22d of February, 1766, the act was repealed by the Commons and later by the Lords, and on the 18th of March the repeal was approved by the king. In 1767, though the internal taxes had been removed by the repeal of the Stamp Act, it was determined by Parliament to raise a revenue from imports and to legalize writs of assistance by which officers of the customs might search the houses of the people for smuggled goods. Whatever Rhode Island did in the opening years of the Revolution, she did with a remarkable display of independence and zeal. The armed sloop "Liberty," whose commander was committing acts most annoying to commerce under the pretense of checking smuggling, was seized by the people of Newport and burnt and sunk. This may be considered the first real overt act in the struggle for independence. Nor did the bold acts of Rhode Island patriots stop here. In June, 1772, the insolence of officials in enforcing the revenue became still more intolerable, and the revenue schooner "Gaspee" was burned in Narragansett Bay by a party in boats from Providence.

In June, 1774, it was resolved by the people of Providence "that the deputies of the town be requested to use their influence at the approaching session of the General Assembly of this colony for promoting a Congress as soon as may be of the Representatives of the General Assemblies of the several colonies and provinces of North America for establishing the firmest union, and adopting such measures as to them shall appear the most effectual to answer that important purpose, and to agree upon proper methods for executing the same." In the same year the assembly, willing to accord the same freedom to the negro which they claimed for themselves, enacted a measure providing "that for the future no negro or mulatto slave shall be brought into this colony."

But it is needless to recount the various steps which led finally to a separation of the colonies from Great Britain. They belong to the field of the general historian rather than to the domain of constitutional history. Stephen Hopkins and

Samuel Ward were chosen delegates to a Continental Congress, which met in Philadelphia in September, 1774, and adopted a Declaration of Rights, and advised the formation of an American Association for the purpose of declaring and maintaining non-intercourse till their grievances should be redressed. The last Colonial Assembly of Rhode Island met on the 1st of May, 1776, and on the 4th of that month it solemnly renounced its allegiance to the crown in the passage of the following act, which antedated by two months the memorable Declaration of Independence :

"Whereas in all states existing by compact, protection and allegiance are reciprocal, the latter being only due in consequence of the former; And whereas George the Third, King of Great Britain forgetting his Dignity, regardless of the compact most solemnly entered into, ratified and confirmed to the inhabitants of this Colony by his illustrious ancestors and till of late fully recognized by him, and entirely departing from the duties and character of a good King, instead of protecting is endeavoring to destroy the good people of this Colony and of all the United Colonies by sending fleets and armies to America, to confiscate our property and spread fire, sword and desolation throughout our country in order to compel us to submit to the most debasing and detestable tyranny whereby we are obliged by necessity and it becomes our highest duty to use every means with which God and nature have furnished us in support of our invaluable rights and privileges, to oppose that Power which is exerted only for our destruction.

"Be it therefore enacted by this General Assembly and by the Authority thereof it is enacted, That an Act entitled, 'An Act for the more effectual securing to his Majesty the allegiance of his subjects in this his Colony and dominion of Rhode Island and Providence Plantations be and the same is hereby repealed.'

"And be it further enacted by this General Assembly, and by the Authority thereof it is enacted, that in all commissions for offices civil and military and in all writs and processes in law whether original judicial or executory, civil or criminal, wherever the name and the authority of the King is made use of, the same shall be omitted, and in the room thereof the name and authority of the Governor and Company of this Colony shall be substituted in the following words to wit, The Governor and Company of the English Colony of Rhode Island and Providence Plantations. That all such commissions, writs and processes shall be otherwise of the same form and tenure as they heretofore were. That the Courts of Law be no longer entitled nor considered as the King's Courts, and that no instrument in writing of any nature or kind whether public or private shall in the date thereof mention the year of the said King's reign, Provided nevertheless that nothing in this Act contained shall render void or vitiate any commission, writ, process or instrument heretofore made or executed on account of the name and authority of the said King's being therein inserted.

"And be it further enacted by the authority aforesaid, That the oaths or Engagements to be administered to the officers appointed in this Colony shall be as follows to wit.

GENERAL OFFICERS.

"You being by the free vote of the freemen of this colony of Rhode Island and Providence Plantations elected unto the place of do solemnly engage to be true and faithful unto this said colony and in your said office equal justice to do unto all persons poor and rich within this jurisdiction to the utmost of your skill and ability without partiality according to the laws established or that may be established by the General Assembly of this colony as well in matters military as well as civil; and this engagement you make and give upon the peril of the penalty of perjury."

It has been thought by some casuists in favor of a more extended right of suffrage than was enjoyed under the colonial charter that the Declaration of Independence dissolved the charter and reduced the state to its original elements, a condition from which it could only be relieved by a new constitution of government. But the General Assembly, in the appointment of delegates to the Continental Congress, which issued the Declaration gave them instructions which clearly contemplated a

continuance of the charter government under any and all circumstances. These instructions, given May, 1776, were as follows :

"The Governor and Company of the English Colony of Rhode Island and Providence Plantations in General Assembly convened, to Stephen Hopkins and William Ellery Esquires Greeting :

"WHEREAS this Assembly reposing special trust and confidence in your abilities and integrity have appointed you the said Stephen Hopkins and William Ellery delegates to represent this Colony in General Congress, you are therefore hereby empowered to join with the delegates of the other United Colonies in Congress at Philadelphia as soon as conveniently may be, or at such time and place as shall be agreed upon by the major part of the delegates from the said colonies.

"You are also authorized and empowered to consult and advise with the delegates of the said colonies in Congress upon the most proper measures for promoting and confirming the strictest union and confederation between the said united colonies, for exerting their whole strength and force to annoy the enemy, and to secure to the said colonies their rights and liberties both civil and religious whether by entering into treaties with any Prince, state or Potentate, or by such other prudent and effectual ways and means as shall be devised and agreed upon. And in conjunction with the delegates from the said United Colonies, or the major part of them, to enter into and adopt all such measures, taking the greatest care to secure to this colony in the strongest and most perfect manner its present established form, and all the powers of government, so far as relate to its internal police, and conduct of our own affairs civil and religious.

"You are also instructed and directed to exert your utmost abilities in carrying on this just and necessary war in which we are engaged against cruel and unnatural enemies in the most vigorous manner until peace shall be restored to the said colonies, and their rights and liberties secured upon a solid and permanent basis.

"You are also empowered to join with the major part of the delegates of the said United Colonies in adjourning from time to time, and to such place or places as shall be thought proper, for and during one year.

"You have it in express charge to make immediate application to Congress to put the Colony Brigade upon the Continental establishment and to defray the expenses of it from the first enlistment of the troops, as that number is indispensably necessary for the defense of the colony which is utterly unable to support them.

"And as it may happen that from sickness or other necessary causes one of you may be absent from Congress ; in all such cases the other is hereby as fully empowered to represent the colony, as though both were present and agreed in sentiment."

It has already been stated that the Rhode Island assembly approved by a formal vote the Declaration of Independence the spirit of which accorded so closely with that of its own declaration adopted two months previously. In order that the spirit dictating its approval may be more apparent to the reader it is inserted here in full as a part of this narrative. On the 19th of July, 1776, it was voted

"That the Resolution of the General Congress declaring the United Colonies free and independent states, and the Act of this Assembly approving said Resolution be published by the Secretary to-morrow in Newport at 12 o'clock in the presence of both Houses of the General Assembly ; that thirteen cannon be discharged at Fort Liberty upon reading the said proclamation ; And that the Brigade be drawn up on the parade in thirteen divisions, and immediately after the discharge of the cannon, make a discharge of musketry, each division firing one volley in succession."

When the proposed articles of Confederation between the states were under consideration in the assembly in February, 1778, it was voted

"That the Honorable Stephen Hopkins, Esq., William Ellery, Esq., and Henry Marchant, Esq., the delegates to represent their state in Congress, or any one of them be and they are hereby

fully authorized and empowered on the part and behalf of this state to accede to and sign the said Articles of Confederation and Perpetual Union in such solemn form and manner as Congress shall think best adapted to a Transaction so important to the Present and Future Generations; Provided that the same be acceded to by eight of the other states. And in case any alteration in or additions to the said Articles of Confederation and Perpetual Union shall be made by nine of the said states in Congress assembled, that the said delegates or any one of them be and they are hereby authorized and empowered in like manner to accede to and sign the said Articles of Confederation and Perpetual Union with the alterations and additions which shall be so made."

The second article of the Confederation declared a principle which laid deep in the hearts of Rhode Island people, and the prolonged support of which was the cause of their delay in adopting the national Constitution. It asserted that "each state retains its sovereignty, freedom and independence, and every power, jurisdiction and right which is not by the Confederation expressly delegated to the United States in Congress assembled."

On the third of May, 1775, Governor Joseph Warton, the last of the colonial governors, was suspended by an act of the General Assembly. On the 25th of April he had, with Darius Sessions, Thomas Wickes and William Potter, announced his allegiance to the king and his opposition to the enlistment of men for defence of the colony. The people were in no temper to tolerate a creature of the king at the head of their government, and he was after a temporary suspension summarily deposed on the fifth of the following November. On the 18th of July, 1776, the General Assembly formally approved the Declaration of Independence made in Philadelphia by the Continental Congress on the fourth of that month. From 1776 to September, 1780, the General Assembly met wherever it was safe for them to convene, surrounded as the state was by hostile armies and fleets. Sometimes it met in Providence and sometimes in Greenwich, but in September, 1780, it met in the state house in Newport, the first time for four years; and as that building had been occupied by the British as a hospital and the churches as barracks, the session was held in the Redwood Library.

In February, 1783, an enabling act was passed by the assembly which declared "that all the rights and privileges of the Protestant citizens of the state, as declared in and by an act made and passed the first day of March, A.D. 1663, be and the same are hereby fully extended to Roman Catholic citizens; and that they being of competent estates and of civil conversation, and acknowledging and paying obedience to the civil magistrate shall be admitted freemen and shall have liberty to choose and be chosen civil or military officers within this state, any exception in the said act to the contrary notwithstanding." This Act was intended to restore the original harmony between the digests and the charter. Greene, in his history of Rhode Island says, that "into these digests, but when or how, nobody could tell the phrases, 'Roman Catholics excepted' and 'professing Christianity' had been interpolated in direct violation of the charter."

About the time of the close of the war in February, 1784, an act was passed providing "that no person or persons whether negroes, mulattos or others who shall be born within the limits of this state on or after the first day of March, A.D. 1784, shall be deemed or considered as servants for life or slaves; and that all servitude for life or slavery of children to be born as aforesaid in consequence of the condition of their mothers be and the same is hereby taken away, extinguished and forever abolished."

In October, 1787, it was ordered that the report of the Constitutional Convention held at Philadelphia be printed and distributed among the towns in the state;

and in February, 1788, an act was passed submitting the report to the consideration of the freemen of the state. At the March meeting of the assembly in 1788, the committee appointed to count the votes of the several towns reported as follows :

	YEAS.	NAYS.		YEAS.	NAYS.
Newport	1	10	Brought up.....	57	1604
Providence	0	1	Exeter.....	6	136
Warwick	3	140	Bristol.....	26	23
Portsmouth	12	60	Tiverton.....	23	92
Westerly	12	56	Little Compton.....	63	57
South Kingstown.....	1	125	Warren.....	2	41
New Shoreham.....	0	32	Cumberland.....	10	113
North Kingstown.....	2	160	Richmond.....	1	68
East Greenwich.....	2	91	Hopkinton.....	33	95
Jamestown.....	5	11	Johnston.....	1	79
Smithfield.....	2	158	Cranston.....	0	101
Scituate.....	0	156	Middletown.....	6	40
Gloucester.....	9	228	North Providence.....	0	48
Coventry.....	0	180	Barrington.....	9	34
West Greenwich.....	2	145	Foster.....	0	177
Charlestown.....	6	51			
Carried up.....	57	1604		237	2708

Thus, by a majority of twenty-four hundred and seventy-one, Rhode Island refused to accept the Constitution. In the meantime, all the other states of the original thirteen had adopted the Constitution, and it had gone into effect when accepted by nine of them. Still, Rhode Island held out until January 17, 1790, when the Assembly, by the casting vote of Governor Collins, voted to call a convention. Newport and Providence, disgusted with the opposition of the States Rights men in the country towns, threatened to dissolve their state associations, and in some way enter the Union. The convention was one of intense excitement, but on the 25th of May, 1790, Rhode Island adopted the Constitution and entered the Union. Before that time the machinery of the National government had been put in operation. Washington had been chosen president, and a National Congress had convened.

The Rhode Island convention, in ratifying the Constitution, stated in its resolutions, after a preamble of some length, that

"Under these impressions and declaring that the rights aforesaid cannot be abridged or violated, and that the explanations aforesaid are consistent with the said constitution, and in confidence that the amendments hereafter mentioned will receive an early and mature consideration, and conformably to the fifth article of said constitution, speedily become a part thereof, We the said delegates in the name and in the behalf of the people of the State of Rhode Island and Providence Plantations do by these presents assent to and ratify the said constitution. In full confidence nevertheless that until the amendments hereafter proposed shall be agreed to and ratified pursuant to the aforesaid fifth article, the militia of the state will not be continued in service out of this state for a longer term than six weeks without the consent of the legislature thereof, that the Congress will not make or alter any regulation in this state respecting the times, places and manner of holding elections for Senators or Representatives when the Legislature of this state shall neglect or refuse to make laws or regulations for the purpose, or from any circumstance be incapable of making the same, and that in those cases such power will only be exercised until the legislature of this state shall make provision in the premises; that the Congress will not lay direct taxes within this state, but when the moneys arising from the imports, tonnage and excise shall be insufficient for the public exigencies, nor until the Congress shall have first made a requisition upon this state to assess, levy and pay the amount of such requisition, made agree-

able to the census fixed in said constitution, in such way and manner as the Legislature of this state shall judge best, and that the Congress will not lay any capitation or poll tax."

The amendments proposed were as follows :

"1st. The United States shall guarantee to each state its sovereignty, freedom and independence, and every power, jurisdiction and right, which is not by this constitution expressly delegated to the United States.

"2nd. That Congress shall not alter, modify or interfere in the times, places or manner of holding elections for Senators and Representatives or either of them except when the Legislature of any state shall neglect, refuse or be disabled by invasion or rebellion, to prescribe the same, or in case where the provision made by the state is so imperfect as that no consequent election is had, and then only until the Legislature of such state shall make provision in the premises.

"3rd. It is declared by the Convention that the judicial power of the United States in cases in which a state may be a party does not extend to criminal prosecutions, or to authorize any suit by any person against a state; but to remove all doubts or controversies respecting the same that it be especially expressed as a part of the Constitution of the United States that Congress shall not directly or indirectly either by themselves or through their judiciary interfere with any one of the states in the redemption of paper money already emitted and now in circulation, or in liquidating or discharging the public securities of any one state; that each and every state shall have the exclusive right of making such laws and regulations for the before mentioned purpose as they shall think proper.

"4th. That no amendments to the Constitution of the United States hereafter to be made pursuant to the fifth article shall take effect, or become a part of the Constitution of the United States after the year one thousand seven hundred and ninety-three, without the consent of eleven of the states heretofore united under the Confederation.

"5th. That the judicial powers of the United States shall extend to no possible case where the cause of action shall have originated before the ratification of the Constitution; except in disputes between states about their territory, disputes between persons claiming lands under grants of different states and debts due to the United States.

"6th. That no person shall be compelled to do military duty otherwise than by voluntary enlistment except in cases of general invasion; anything in the second paragraph of the sixth article of the Constitution, or any law made under the Constitution to the contrary notwithstanding.

"7th. That no capitation or poll tax shall ever be laid by Congress.

"8th. In cases of direct taxes Congress shall first make requisitions on the several states to assess, levy and pay their respective proportions of such requisitions in such way and manner as the Legislatures of the several states shall judge best; and in case any state shall neglect or refuse to pay its proportion pursuant to such requisition then Congress may assess and levy such state's proportion together with interest at the rate of six per cent. per annum from the time prescribed in such requisition.

"9th. That Congress shall lay no direct taxes without the consent of the Legislatures of three-fourths of the states in the Union.

"10th. That the journals of the proceedings of the Senate and House of Representatives shall be published as soon as conveniently may be at least once in every year; except such parts thereof relating to treaties, alliances, or military operations as in their judgment require secrecy.

"11th. That regular statements of the receipts and expenditures of all public moneys shall be published at least once a year.

"12th. As standing armies in time of peace are dangerous to liberty and ought not to be kept up except in cases of necessity, and as at all times the military should be under strict subordination to the civil powers, that therefore no standing army or regular troops shall be raised or kept up in time of peace.

"13th. That no moneys be borrowed on the credit of the United States without the assent of two-thirds of the Senators and Representatives present in each house.

"14th. That the Congress shall not declare war without the concurrence of two-thirds of the Senators and Representatives present in each house.

"15th. That the words 'without the consent of Congress' in the seventh clause in the ninth section of the first article of the constitution be expunged.

"16th. That no Judge of the Supreme Court of the United States, shall hold any other office under the United States or any of them; nor shall any officer appointed by congress or by the President and Senate of the United States be permitted to hold any office under the appointment of any of the states.

"17th. As a traffic tending to establish or continue the slavery of any part of the human species is disgraceful to the cause of liberty and humanity, that Congress shall as soon as may be promote and establish such laws and regulations as may effectually prevent the importation of slaves of any description into the United States.

"18th. That the State Legislatures have power to recall when they think it expedient their federal senators, and to send others in their stead.

"19th. That Congress have power to establish a uniform rule of inhabitaney or settlement of the poor of the different states throughout the United States.

"20th. That Congress erect no company with exclusive advantages of commerce.

"21st. That when two members shall move or call for the ayes and nays on any question they shall be entered on the journals of the houses respectively."

The method of the ratification with the amendments proposed, shows the extreme sensitiveness of Rhode Island concerning any possible encroachments on her liberties. She had enjoyed under her charter privileges far more liberal than those enjoyed by her sister provinces, and being a small state, both in territory and population, she feared that her integrity and influence might be impaired under the Constitution. Under the Articles of Confederation, only one House was contemplated, and in that the representation would be by states, and the votes by states, thus giving the smallest state the same weight which the largest would have on all questions of legislation. For this reason her people were loth to abandon the confederation and adopt the Constitution. The Articles of Confederation provided for no separate executive department, but committed all executive duties to Congress and for the exercise of executive powers one House, it was believed, would be more efficient than two. In this respect, the saving clause of the Constitution was the provision for a Senate, in which all states, large or small, should have the same representation. So far as the amendments proposed by the Rhode Island convention are concerned, not one of them has ever been adopted.

Unlike Massachusetts, which adopted a state Constitution, Rhode Island continued under its charter of 1663. But the conditions of the two states were different. The frame of government of Massachusetts under the charter of 1691 was so permeated with royalty that an entire new structure was necessary. But, under the charter of Rhode Island, her liberties were as secure, and could be as well enjoyed, as under a constitution constructed by the people. Besides, the animosities excited during the consideration of the National Constitution were thought better to have an opportunity of slumbering and dying out before another opportunity like that of a state convention was afforded for their rekindling. Repeated efforts were made, however, to have a state convention called, but to no purpose. These began in February, 1793, when a memorial was presented to the General Assembly and rejected, and repeated in 1797 and 1799, and still again in 1808. In 1821 a proposition to appoint delegates to form a constitution was submitted to the freemen, and rejected by a vote of sixteen hundred and nineteen yeas to nineteen hundred and five nays. In 1822 the same proposition was defeated by a vote of eight hundred and forty-three yeas to eighteen hundred and four nays. In 1824 a convention was authorized by the General Assembly, and met at Newport on the twenty-first of June, and adopted a constitution. On the second Monday in October the proposed constitution was rejected

by the freemen by a vote of sixteen hundred and sixty-eight yeas to thirty-two hundred and six nays. In September, 1834, an authorized convention met in Providence, but, after several adjournments, was finally dissolved without having completed a constitution. On the sixth of February, 1841, the General Assembly authorized a convention to be held in Providence, which met on the first day of November. A constitution was adopted called the Land-Holders' Constitution, which was rejected by the freemen in March, 1842, by a vote of eight thousand and thirteen yeas to eighty-six hundred and eighty-nine nays.

In the meantime the people of Rhode Island, irrespective of their right to vote under the charter, began to feel a deep interest in the formation of a constitution in which a more liberal suffrage might be secured. Those, too, who enjoyed the right of suffrage were restless under the inequalities of representation under the charter which it should be the duty of a constitution to reform. The methods of representation prescribed by the charter were based on conditions many of which had changed, and some of which had been outgrown.

Newport with a population at that time of eighty-three hundred and eighty-three had six representatives, while Providence, with a population of twenty-three thousand one hundred and seventy-one had four. In 1840 out of seventy-two representatives thirty-eight represented twenty-nine thousand and twenty inhabitants and twenty-eight hundred and forty-six voters, and thirty-four represented seventy-nine thousand eight hundred and four inhabitants and five thousand seven hundred and seventy-six voters. From this condition of things the people believed that the assembly could not or would not afford any relief. Some of the people believed that relief could only be found in a revolution, and they met in convention in Providence on the 5th of July, 1841, and authorized the State Committee of the Suffragists, as they were called, to call a constitutional convention. On the 28th of August delegates were chosen and the convention met at the State House in Providence on the 4th of October. On the 18th of November what was called the People's Constitution was framed and submitted to the people irrespective of their freehold qualifications. On the 27th, 28th and 29th of December the polls were open for voters in person, and on December 30th, 31st, and January 1st, for proxies on votes collected and brought in, and the result was thirteen thousand nine hundred and forty-four yeas and fifty-two nays. Of those who voted in the affirmative forty-nine hundred and sixty were a probable majority of freemen and legal voters, and eighty-nine hundred and eighty-four non-freemen and illegal voters. In January, 1842, the Constitution was proclaimed by order of the convention, and in April an election of a full state ticket with the name of Thomas Wilson Dorr at its head for Governor was chosen.

At the session of the Assembly held in January, 1842, the People's Constitution was received with the accompanying declaration that it had been adopted by the people and was the "Supreme Law of the State." In response to the declaration the Assembly passed the following resolutions:—

"WHEREAS a portion of the people of this state without the forms of law have undertaken to form and establish a constitution of Government for the people of this state and have declared such constitution to be the supreme law and have communicated such constitution unto this General Assembly; and whereas many of the good people of this state are in danger of being misled by these informal proceedings; therefore,

"It is hereby resolved by this General Assembly, that all acts done by the persons aforesaid for the purpose of imposing upon this state a constitution are an assumption of the powers of government, in violation of the rights of the existing government and of the rights of the people at large.

"Resolved, That the convention called and organized in pursuance of an act of the General Assembly for the purpose of forming a constitution to be submitted to the people of this state is the only body which we can recognize as authorized to form a constitution; and to this constitution the whole people have a right to look, and we are assured they will not look in vain for such a form of government as will promote their peace, security and happiness.

"Resolved, That the General Assembly will maintain its own proper authority, and protect and defend the legal and constitutional rights of the people."

Attempts were at once made to take possession of the government. The first was made at the State House in Providence and the second at the Arsenal, both of which failed. On the 25th of June the Suffragists occupied Acote's Hill in Chepachet, but on the approach of the state troops retired. This was the end of the war. Governor Dorr was arrested and tried for treason and condemned to imprisonment for life. In 1847 he was liberated under an act of General Amnesty, and in 1851 restored to his civil and political rights. The Assembly assuming powers they did not possess also reversed his sentence as illegal and unjust. The Supreme Court, however, refused to sustain this reversal, and in an able opinion settled once for all the constitutional powers of the Assembly in connection with judicial proceedings.

But meanwhile the constituted authorities were not idle. A new convention was called which submitted a constitution to the freemen which they refused to accept. Another convention was however called which met at East Greenwich and adopted a constitution on the fifth of November, 1842. On the 21st, 22nd and 23rd it was voted on by the freemen of the state and accepted by a vote of seven thousand and thirty-two yeas to fifty-nine nays. On the first Tuesday in May, 1843, it went into operation just two hundred years after the date of the charter of the Long Parliament and one hundred and eighty years after that of the charter of Charles the Second.

After the election of the state officers and of the members of the legislature, the organization of the government under the new charter was completed with ceremonies worthy of the event. The General Assembly under the charter met at the State House in Newport, on Monday, May 1, 1843, and the two houses in convention, or grand committee, resolved "that Messrs. Lawton, Fenner, Potter, Harris and Bosworth, of the Senate, and Messrs. Cranston, Branch, Updike, Remington and Hall, of the House, be a committee to be present at and witness the organization of the government under the constitution adopted by the people of this state in November last; and that said committee make report to this General Assembly as soon as said organization shall be completed in conformity to the provisions of said constitution, in order that this General Assembly may know when its functions shall have constitutionally passed into the hands of those who have been legally chosen by the people to receive and exercise the same." The convention of the two houses then adjourned till five o'clock the next day, Tuesday, May 2. The General Assembly under the constitution met at the State House on Tuesday at eleven o'clock, and after the organization of the two houses they met in convention, or grand committee, and appointed a committee to count the votes for governor, lieutenant-governor, secretary, attorney-general and general treasurer. They then adjourned till five o'clock, when, after the report of the committee had been accepted, James Fenner, was declared governor, Byron Diman lieutenant-governor, Henry Bowen secretary of state, Joseph M. Blake attorney-general and Stephen Cahoon general treasurer. Samuel Ward King, the charter governor, who during the ceremony had presided, occupying the same oak chair in which Governor Benedict Arnold sat when he received the charter of 1663, resigned his seat to his successor under the constitution. The town sergeant then made proclamation of the new government from the balcony

of the State House, which was followed by a discharge of artillery. The new assembly then resolved "that Messrs. Cranston and Chase, of Newport, Ames and Branch, of Providence, Hazzard and Barber, of Washington, Whipple and Brayton, of Kent, Hall and Cole of Bristol, with the senators from Providence, Little Compton, Westerly, Warwick and Warren, be a committee to wait upon the General Assembly under the charter here legally convened, and announce to said General Assembly, in grand committee assembled, that the government under the constitution is duly organized.

After the adjournment of the constitutional assembly, the General Assembly under the charter met according to adjournment in grand committee and received the communication from the new assembly. The committee appointed to be present at the organization of the new government then submitted the following report:

"The subscribers appointed by this Honorable Body a committee to be present at the organization of the new General Assembly under the constitution recently adopted by the people of this state respectfully report that they have attended to the duty assigned to them; that the Senate, and House of Representatives under the constitution have been duly organized according to the provisions of said constitution, and the act passed at the last January Session of the General Assembly regulating this organization, and that therefore according to the provisions of said constitution the power of the government as organized under the charter has ceased.

"EDWARD W. LAWTON,	WILKINS UPDIKE,
"ELISHA HARRIS,	BENJAMIN HALL,
"ELISHA R. POTTER,	BENJAMIN F. REMINGTON,
"HEZEKIAH BOSWORTH,	STEPHEN BRANCH,
"HENRY Y. CRANSTON."	

The following resolution was then adopted:

Resolved, "That the foregoing Report be accepted and that this General Assembly be and the same is hereby declared to be dissolved."

The new constitution contained in its first article a statement of some general principles, and declared that slavery should not be permitted in the state, that the trial by jury should be inviolate, that the people should continue to enjoy all the rights of fishery and the privileges of the shore which they had enjoyed under the charter, and contained other sections concerning liberty of the press, the rights of accused persons and the right of the people to assemble for their common good, and also to keep and bear arms.

Article 2 relates to the qualification of electors. Under its first section every male citizen of the United States, of the age of twenty-one years, who has had his residence and home in the state one year, and in the town or city where he claims the right to vote, six months, next preceding the time of voting, and who is the owner in his own right, in fee simple, *fee tail*, or for the life of any person, in possession, reversion or remainder of real estate in the town or city of the value of \$134, over all incumbrances, or yielding a clear annual rent of seven dollars, qualifying no other person, the deed of which has been recorded ninety days, is qualified to vote therein in the election of all civil officers and on all questions in all legal town or ward meetings. This section, it will be observed, extends to every citizen, native or naturalized.

The second section provides that every male native citizen of the United States, of the age of twenty-one years, who has had his residence and home in the state two years, and in the town or city where he offers to vote six months, next preceding the

time of voting, and whose name shall have been registered in such town or city, on or before the last day of December of the year next preceding, and who shall show by legal proof that he has paid a tax therein of one dollar assessed against him, or been enrolled or done military duty for at least one day during such year, shall have a right to vote in the election of all civil officers and on all questions in all legal town or ward meetings, subject to the proviso that he shall not vote for city councilmen of the city of Providence, or for any proposition to impose a tax, or for the expenditure of money, unless he shall have paid, within the year next preceding, a tax assessed on his property therein, valued at least at one hundred and thirty-four dollars. Under section 3 the assessors of each town or city are required to assess on every person registered as aforesaid a tax of one dollar, or such sum as with his other taxes shall amount to one dollar, which he has the option to pay or not, no compulsory process being issuable for it. These were the only sections confining a right to vote on the popular electors.

Two features of the second section provoked complaint and agitation for change. One was that it extended the right to vote under it only to native citizens. The effect was to confine the suffrage for naturalized citizens, to such only as, being freeholders, could vote under the first section. It was argued in support of the restriction that the state, being largely engaged in manufacturing, attracted a numerous foreign-born population, who having nothing to hold them but their employment, were very migratory, and that it was therefore unwise to let them vote until they had shown their purpose to remain permanent citizens, with a continuing interest in the government, by acquiring some ownership of the soil. The argument failed to quiet the agitation. The other feature was the assessment of the dollar tax, to be paid before voting by all who were not property tax-payers. This tax had the recommendation that, when paid, it was to be applied to the support of the public schools where it was paid; but, as the payment was not compulsory, it soon became customary for each of the political parties to pay it for their followers, thus acquiring a sort of lien on their votes, and introducing into the politics of the state an influence, that not only savored of bribery and corruption, but also too often actually opened the way to them. On this account many, not otherwise opposed to the tax, came to be in favor of its abolition. These two features, though not the only ones that were objected to, were those that were most in disfavor, and that finally had, after long agitation and some attempted changes that failed, to the amendment adopted April 4, 1888, hereafter referred to.

The second article was amended April 7, 1886, by adding the provision that "all soldiers and sailors of foreign birth, citizens of the United States, who served in the army or navy of the United States from Rhode Island in the Civil War, and who were honorably discharged from service, might vote on all questions in all legally organized towns, districts or ward meetings upon the same conditions and under and subject to the same restrictions as native born citizens." It was further amended April 4, 1888, by providing that "no person shall be allowed to vote in the election of the city council of any city, or upon any proposition to impose a tax, or for the expenditure of money in any town or city unless he shall within the year next preceding have paid a tax assessed upon his property therein valued at least at one hundred and thirty-four dollars."

Article 3 distributes the powers of government into three departments—the legislative, executive and judicial.

Article 4 provides that the legislative power shall be vested in two houses, the Senate and House of Representatives, both together forming the General Assembly,

two sessions of which should be held annually, one at Newport for election, etc., on the first Tuesday of May, and the other at South Kingston once in two years on the last Monday in October, and the intermediate years at Bristol and East Greenwich alternately, and an adjournment of the October session to be held annually in Providence. It provided that the assembly shall have no power, without the consent of the people, to incur state debts exceeding fifty thousand dollars except in time of war or in case of insurrection or invasion, and that the assent of two thirds of the members elected to each house should be required to every bill appropriating the public money or property for local or private purposes. It further provided that a bill to create a corporation for any other than religious, literary or charitable purposes, or for a military or fire company, should be continued to the next assembly and be advertised according to law. This article was amended in November, 1854, by the provision that one session of the assembly shall be held annually, beginning at Newport on the last Tuesday in May and adjourned to Providence.

Article 5 provided that the House of Representatives shall consist of seventy-two members constituted on the basis of population allowing one representative from a fraction exceeding half a ratio, each town being always entitled to one, and no town or city to have more than one-sixth of the whole number, the first ratio being one for every fifteen hundred and thirty inhabitants, and future ratio to be fixed by the assembly after each national or state census.

Article 6 provided that the Senate should consist of the lieutenant-governor and of one senator from each town or city; that the governor, or in his absence the lieutenant-governor, should preside, the presiding officer only voting in case of an equal division. In case of the absence of both the governor and lieutenant-governor, the secretary of state presides until a presiding officer is chosen, and the secretary of state is the secretary of the Senate.

Article 7 relating to the governor provided that he should have power to grant reprieves in all cases except impeachment until the end of the next session of the General Assembly and other powers usually held by a governor as captain-general and commander-in-chief of the military and naval forces of the state except when they shall be called into the service of the United States. And he shall also be the president of the Senate. An amendment to the constitution, adopted in November, 1854, provided that the governor by and with the advice and consent of the Senate shall hereafter exclusively exercise the pardoning power except in cases of impeachment, to the same extent as such power is now exercised by the General Assembly.

Article 8 treated of the manner of holding elections which it is not necessary to describe in detail.

Article 9 relating to qualifications for office provided that no person shall be eligible to any civil office except the office of school committee unless he be a qualified elector for such office; that every person shall be disqualified from holding any office to which he may have been elected if he be convicted of having offered or procured any other person to offer any bribe to secure his election, or the election of any other person; and that no person holding any office under government of the United States, or of any other state or country shall act as a general officer or as a member of the General Assembly unless at the time of taking his oath he shall have resigned his office under such government; and if any general officer, senator, representative or judge shall after his election and oath accept any appointment under any other government his office under this shall be immediately vacated; but this restriction shall not apply to any person appointed to take depositions or acknowledgments of deeds or other legal instruments by the authority of any other state or country.

Article 10 provided that the judicial power should be vested in one Supreme Court and in such inferior courts as the General Assembly may establish, and that the judges of the Supreme Court should be elected by the two houses in convention, each judge to hold his office until his place be declared vacant by a concurrent resolution passed by a majority of the two houses.

Article 11 provided that the House of Representatives should have the sole power of impeachment, a vote of two-thirds being required for an impeachment of the governor, and that all impeachments should be tried by the Senate, and a two-thirds vote be necessary for conviction. In an impeachment trial of the governor, the chief justice of the Supreme Court presides, and has a casting vote.

Article 12 related to education, with no provisions which it is necessary to describe.

Article 13 provided that the General Assembly might propose amendments to the constitution by the votes of a majority of all the members elected to each House, which, if approved by the same majority in the next General Assembly, shall be submitted to the electors, of whom three-fifth of those present and voting would be necessary for their final adoption.

Article 14 related chiefly to the method of adopting the constitution.

The above synopsis contains the most important features alone of the constitution, the others being of less consequence for the purposes of this narrative.

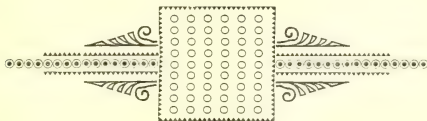
An amendment was adopted April 7, 1886, providing that the manufacture and sale of intoxicating liquors to be used as a beverage shall be prohibited, and that the General Assembly shall provide by law for carrying the amendment into effect. This article, though adopted by the electors by a vote of fifteen thousand, one hundred and thirteen yeas, to nine thousand, two hundred and thirty nays, was annulled by another amendment adopted June 20, 1889, by a vote of twenty-eight thousand, three hundred and fifteen yeas, to nine thousand nine hundred and fifty-six nays. An amendment adopted November 8, 1892, as a substitute for section seventeen in Article 4 of the constitution, relating to the creation of corporations referred to in the above synopsis, provided that the General Assembly might provide by law for the creation and control of corporations, provided that no corporation should be created with the power to exercise the right of eminent domain, or to acquire franchises in the streets and highways of towns and cities, except by special act of the General Assembly upon a petition for the same, the pendency of which should be notified as may be required by law. A last amendment was adopted November 28, 1893, as a substitute for section ten, in Article 8 of the constitution, relating to elections, which provided that in all elections held by the people for state, city, town, ward or district officers, the person or candidate receiving the largest number of votes should be declared elected.

The following amendments to the constitution have been proposed and rejected by the electors. An amendment relating to woman suffrage was defeated by a vote of six thousand, eight hundred and eighty-nine yeas, to twenty-one thousand, nine hundred and fifty-seven nays. On the fourth of April, 1888, an amendment extending the right of suffrage was defeated by a vote of twenty thousand and sixty-eight yeas, to twelve thousand, one hundred and ninety-three nays, a three-fifths vote being required for its adoption. On the eighth of November, 1892, an amendment providing for biennial elections was defeated by a vote of eighteen thousand, seven hundred and forty-nine yeas, to thirteen thousand, nine hundred and seven nays. On the twenty-fifth of November, 1895, the same amendment was again submitted to the electors, and defeated by a vote of seven thousand, four hundred and forty-nine yeas, to ten thousand, six hundred and three nays.

With reference to the article on the judiciary, it may be said that the Court of Common Pleas in each county is held by a single judge of the Supreme Court, and has jurisdiction, including appeals from justices and other inferior courts, of crimes not punishable by imprisonment for life, and of civil cases involving \$100 and upwards, or the title to real estate. Justice courts are held in each town and city by a trial justice selected from the qualified justices of the peace.

Though perhaps not strictly within the scope of a constitutional history, some reference to the penal and reformatory and charitable establishments of the state, and to its educational system, all of which are under state control, may not be thought out of place in this sketch. The state institutions belonging to the penal system are a state prison and work-house and house of correction, which, together with the Providence county jail, are located on the state farm in Cranston, a tract of land of about five hundred and thirty-eight acres, on which are also located the State Asylum for the Incurable Insane, the State Almshouse, the Sockanosset School for boys, and the Oakland School for girls, the two latter being departments of the State Reform School. All these establishments are under the management of the Board of State Charities and Corrections. Besides these are the Rhode Island Institute for the Deaf and the State Home and School, the former under the control of a Board of Trustees, and the latter of a Board of Control, both boards appointed by the governor. The public schools are under the management of a Board of Education, composed of six members, two of whom are appointed annually for three years, and the governor and lieutenant-governor *ex officio*. The board elects a commissioner of public schools, who is also its secretary. There is a school committee in each town, to which women are eligible, and in each district a board of trustees, and in the cities the schools are regulated in accordance with regulations adopted by the city authorities.


But the space allotted to this sketch has been exhausted, and it must be brought to a close. In conclusion, let it be stated that the little colony consisting of Roger Williams and five companions which in 1636 landed at Providence, has grown into a state, small in territory, but containing a population in 1895 of three hundred and eighty-four thousand seven hundred and fifty-eight, including one of the richest and most enterprising cities of the Union, with a population of one hundred and forty-five thousand four hundred and seventy-two, and a state valuation in 1896 of \$383,493,524. Its manufacturing interests are abundant and productive, its population contains a small percentage of illiteracy, its people are intelligent and industrious, and on every hand it exhibits promising signs of increasing prosperity and growing wealth.



CHAPTER CLXIII.

JUDICIAL HISTORY OF RHODE ISLAND.

BY THOMAS DUFFEE.

HE first settlers of Rhode Island founded not a state, but four separate communities, to wit: Providence in 1636; Portsmouth in 1638; Newport in 1639; and Warwick in 1642.* Each of these, except Warwick, formed a government for itself by agreement, calling itself a town. Their judicial history, down to their union under the first charter in 1647, is a proper preliminary to that of the state at large.

The Providence settlers agreed to subject themselves to all "orders or agreements," made for the public good, in an orderly way, "by the major consent of the present inhabitants, masters of families, incorporated together into a town fellowship, and others whom they shall admit unto them, only in civil things." Under the agreement, the power of the majority in civil matters was practically without limit. The judicial power, like the other powers, vested directly in the freemen, and, until elsewhere bestowed, could be exercised by them in town meeting. It was in town meeting that Joshua Verin, who had offended against liberty of conscience by refusing to let his wife attend the week-day services of Roger Williams, was condemned to be "withheld from the liberty of voting till he shall declare the contrary." It would be both interesting and instructive to know how well the freemen performed their judicial functions; but the town records, which are very defective, do not give the information. They make no mention of other trials. It will be readily imagined, however, that while such a tribunal might suffice for a small community, it would be likely, even for that, to lack the equanimity and patient attention which are essential to the administration of justice. As the community grew, its shortcomings would the more clearly appear, and finally, as litigation increased, it would become impatient of the increasing demand upon its time, and would itself be glad to shift the burden, or a portion of it, to other shoulders. Apparently this was what happened in Providence.

* The opening sentence in this chapter is virtually the same as in a tract entitled, "Gleanings from the Judicial History of Rhode Island," formerly written by the author, and published by Mr. Sidney S. Rider, as No. 18 of his first Series of "Rhode Island Historical Tracts." The tract covers parts of the ground covered by this chapter. In treating these parts, the author's aim has been to make fresh studies of the original authorities,—using the tract only as any other writer might properly use it. But, so used, it has been of much assistance to him; and, inasmuch as when written, it passed to Mr. Rider, he hereby makes acknowledgment of his indebtedness to it.

In 1640, the town delegated a portion of its powers to five Disposers, so-called, who, among their duties, were to administer a provision for the trial of civil cases by arbitration. The cases were to be tried, in the first instance, by four arbitrators; to be chosen by the parties, two on each side, or, in so far as the parties failed to choose, by the Disposers. If the arbitrators reached a conclusion, the Disposers were to see it enforced; if they failed to reach a conclusion, which, considering their number, and the method of choice, they were not unlikely to do, the Disposers were to appoint three men to re-try the case, with power for any two of them to render final judgment. This unwieldy procedure, so far as it appears, continued to serve until after 1647. Meanwhile, criminal cases, if any occurred, were presumably tried, as previously, in town meeting.

The Portsmouth settlers came fully charged with the zeal of fresh converts for the peculiar Puritanism which they professed, and, in their initial compact, evinced a decidedly theocratic turn of mind. They agreed to submit their "persons, lives and estates unto our Lord Jesus Christ, the King of Kings and Lord of Lords, and to all those perfect and most absolute laws of His, given us in His Holy Word of Truth, to be guided and judged thereby." They chose William Coddington as judge among them, promising to yield "all honor unto him according to the laws of God;" and he in turn engaged "to do justice and judgment impartially according to the laws of God." It does not appear, however, that he did anything for the first nine months, except preside over the freemen in town-meeting, who meanwhile passed all laws and conducted all proceedings. Within six months after the settlement began, and when the freemen had but recently ordered a pair of stocks and a whipping post, eight men were brought before them in town-meeting on a warrant for "a riot of drunkenness," and the freemen, after trying, sentenced them severally to pay a fine of five shillings, and three of them also to sit in the stocks.* At a later meeting they ordered that the house and furniture of an absconding debtor should be seized and applied to satisfy the claims of his creditors.† But before the first year came to an end a new procedure was adopted. Three Elders were appointed to help the judge administer justice, civil and criminal, and draw up laws "according to God," and, together with him, to have the entire charge of public affairs. They were, nevertheless, to render an account of their doings to the quarterly meetings of the freemen, which retained the right to revise or reverse them if they did not meet their approval.‡ There was quite a strong tincture of Hebraism in this piece of legislation, but less than in the initial compact.

In the beginning of the second year a number of the inhabitants withdrew and founded the town of Newport. Those that remained acknowledged themselves the legal subjects of King Charles, and regardless of their previous theocratic professions, engaged themselves "into a civil body politic unto his laws according to matters of justice." They elected a "ruler or judge" for the year, and also seven assistants. These were to hold court every quarter, with a jury. The assistants were to sit first by themselves and effect, if they could, an amicable settlement of controversies involving less in value than forty shillings; but if they could not, then to sit with the judge and try them in open court.§ This was making the court, to that extent, one of conciliation as well as trial, and it is to be regretted that nothing remains to show how it worked. However, it is pleasant to note the general good-will that prompted it.

The Newport settlers agreed at first to be governed "by major voice of judge and elders," but soon professed themselves "natural subjects to our Prince, and sub-

* 1 Rhode Island Colonial Records, 60.

† *Ib.*, 62.

‡ *Ib.*, 63.

§ *Ib.*, 71.

ject to his laws."* They confided the administration of justice, the first year, to a judge and elders, the judge to have a double vote. The next year a common government was established for the two island towns, with governor, deputy-governor and four assistants, two from each town, for magistrates. These were to be *ex officio* justices of the peace.† Particular courts were ordered to be held on the first Tuesday of every month, one in Newport, and another in Portsmouth, by magistrates with jurors, with power to try and determine all such cases as should be presented.‡ Subsequently these courts were to meet at the call of the magistrates of each town on the first Tuesday of the month at Newport, and on the first Thursday in Portsmouth, to try all causes not of "life and limb," with right of appeal for the defendant, "if cast" to the Quarter Sessions.§ The system thus inaugurated continued, with occasional changes, until 1647.

The foregoing account shows a remarkable progress on the part of the settlers of the island towns. Beginning with an attempt to administer Judaic law by town meeting, in an American wilderness, they passed in two years to an effectual realization, that, as they were still Englishmen, the laws of England, with courts and juries to administer them, were the proper laws for them. This progress, while indicative of intelligent leadership, may have been promoted by another cause. Their governments had been established without the sanction of either crown or Parliament. The validity of them had been, for that reason, denied by the neighboring colonies, and was not unquestioned among themselves.|| Hence they were desirous of a charter, which should unite them with the mainland towns, and, covering the entire Rhode Island territory, authoritatively command for them the respect of their neighbors; and they could not but see that the surer way to get such a charter was to solicit it as English subjects, loyal to the laws of the realm.

The charter was secured by Roger Williams, and went into effect in 1647. Under it, and in pursuance of the code then adopted, a president and four assistants, one from each town, were annually chosen as general officers. These officers were commissioned as conservators of the peace throughout the colony, and also to hold the Colony or General Court of trials, then created. This court was given jurisdiction over the graver offences, over civil causes of great importance, and such as the common councils of the several towns might deem too weighty for a more private determination; over causes between town and town, between residents of different towns, against persons belonging to the neighboring colonies, and generally over causes not left to the towns.¶ The jurisdiction left to the town and island courts covered the lesser offences and civil causes between parties belonging to the same town. At first the General Court was required to meet twice a year, to wit: in May and October;** afterwards, if need were, to make the circuit of the towns,†† so that causes might be

* 1 Rhode Island Colonial Records, pp. 87, 93.

† 1 Arnold's Hist. of Rhode Island, pp. 143-4; 1 Rhode Island Colonial Records, pp. 100, 101.

‡ 1 Rhode Island Colonial Records, 103.

§ 1 Rhode Island Colonial Records, 106, explicitly show how the Quarter Sessions were constituted, but apparently they were held by the magistrates of the two towns, with a jury for the trial of cases, civil or criminal. (1 Rhode Island Colonial Records, pp. 106, 113, 115, 123-4; 1 Arnold's Hist. Rhode Island, p. 144). Their jurisdiction was common to the two towns, whereas, that of the Particular Courts was limited to the towns severally, according as they were held in the one or the other.

|| Samuel Gorton held that such sanction was necessary, and the Warwick settlers, under his leadership, established no government, and had no judiciary, of which account can be given previous to the first charter. (1 Rhode Island Colonial Records, 129.)

¶ 1 Rhode Island Colonial Records, 191.

** *Ib.*, 191.

†† *Ib.*, 305-6.

tried where they originated, or where arrest was made.* Under the code, the head officers of the town where the court was in session were to sit with the judges, for their counsel and help, and in 1650 were given equal authority to vote and act with them.†

The code required the court, when in session, to meet at 8 o'clock A. M., and prescribed, with much particularity, the order to be pursued in disposing of its business. Among other things it made it the duty of the president, or an assistant, to "mind the inquest of the most material passages and arguments that are brought by one and other for the case and against it, without alteration or leaning to one party or another, which is too commonly seen."‡ The professed object was to add to "the comely and commendable order of the court;" and surely, in view of the circumstances, such solicitude for the maintenance of decorum, dignity, and impartiality in the administration of justice was exceedingly creditable to the authors of the code and to the people who enacted it. After 1650, if not before, the General Court seems to have exercised an appellate or revisory jurisdiction over the town or local courts.§ Indeed, in 1651, when, in consequence of Coddington's usurpation, so-called, the mainland towns were left alone to carry on the government under the first charter, an order was passed that all causes should, in the first instance, be tried in the town courts, except prosecutions for certain high crimes.|| The General Court continued in operation, except as interrupted by Coddington's usurpation, until the reception of the royal charter in 1663. Among the names of those who served as judges on it, are the historic names of Roger Williams, John Clarke, William Coddington, and Samuel Gorton.

Under the code of 1647 the towns seem to have been left free to retain their old modes of trial or to adopt new ones for the causes, civil and criminal, not confined to the General Court. Owing to the defectiveness of their records it is impossible to give any complete account of their action in this particular, and if it could be done, it is doubtful if it would be worth the doing for either the pleasure or the profit which it would afford. Suffice it to say, that in Providence, trial by enforced arbitration was erelong exchanged for other modes, and that as late as 1655 the town reasserted its right to try, in town-meeting, all actions between party and party, regardless of the amount involved.¶

The years prior to the second charter were largely years of experiment. The settlers were feeling their way, as it were, to better forms of government. The love of individual right and individual freedom among them was very strong and quick to take alarm. Their experience in Massachusetts had made them suspicious of delegated authority and impressed them with the belief that their rights were the safer the more immediately they kept the government in their own hands. Hence it was that under the first charter so much power was reserved to the towns. So long as it remained in the towns, it remained under their immediate control. Gradually, however, they came to see that a government so administered lacks the strength and steadiness which are requisite to command respect, either at home or abroad; and hence, when the royal charter of 1663 arrived, they were very ready to give it welcome, and to accept the more centralized and powerful government which it introduced.

The charter of 1663 named certain persons to act as governor, deputy-governor and ten assistants until the induction of their successors, and clothed them and their

* 1 Rhode Island Colonial Records, 209, 211. † *Ib.* 202, 218. ‡ *Ib.* 202-3. § *Ib.* 222.

|| *Ib.* 237.

¶ 2 Prov. Town Rec., 85.

successors with a general administrative and magisterial authority. It provided that the governor or deputy-governor and at least six assistants, together with the deputies, chosen by the several towns, should constitute the General Assembly, and conferred upon it extensive legislative and other powers. The assembly, so constituted, met for the first time in March, 1663-4, and ordered that the governor, the deputy-governor, or either of them, with at least six assistants, should hold two General Courts in Newport every year, one in May and the other in October,* and that the towns should supply for each term twelve grand and twelve petit jurors. It also empowered the governor or the deputy-governor, in his discretion, to call special courts for urgent occasions, to be held by the governor or deputy and at least three assistants, with a jury, at the expense of the person requesting them. It further ordered two courts for Providence and Warwick "for the trial of any actional matter of the value of and under ten pounds, principal debt or damage." These courts were to be held by at least three assistants: at Providence in September, with at least one Warwick assistant; and at Warwick in March, with at least one Providence assistant. Each town was to furnish six jurymen. An appeal was allowed to the General Court.† No courts were provided for the Narragansett country, the colony's jurisdiction over which was warmly contested by Connecticut. In 1669, however, the town of Westerly was formed out of a part of it, and the same year the governor and council (*i. e.* the governor, deputy governor and ten assistants), in the exercise of authority conferred by the king's commissioners, and, pursuant to the recommendation of the General Assembly, appointed six Conservators of the Peace for the entire territory, then called King's Province, with power to any three or more of them to hold court with a jury of six men, for the trial of cases for not more than forty shillings, subject to appeal to the General Court,‡ and with power to any one or more of them to inquire into breaches of the peace and bind over or commit supposed offenders for trial in the General Court.§ Nevertheless, nearly sixty years were to pass before the question of jurisdiction would be finally decided in favor of Rhode Island, and, meanwhile, Rhode Island officers were to find themselves repeatedly in conflict or collision with those from Connecticut. In 1672 Block Island was added to the list of towns, and empowered to elect two wardens, so-called, with authority to hold jury trials in actions for five pounds|| or less, and also, as justices of the peace, to imprison offenders, or bind them over for trial in the General Court.¶ And so, doubtless, there was like provision, special or general, for towns subsequently formed. Indeed, after a while, a law was passed that the General Assembly should elect, annually in May, so many justices of the peace for each town, as it should deem needful, and that the justices of any town, where the defendant should live or be arrested, or any two of them, should have power to try and determine, subject to appeal, all suits for forty shillings or less, in

* As the business of the court and the assembly increased it was found that the sessions of the one interfered with the sessions of the other, and in 1680 the sessions of the court were changed to the last Tuesday in March and the first Tuesday in September. (3 Rhode Island Colonial Records, 88).

† 2 Rhode Island Colonial Records, 26, 27, 28, 30, 31.

‡ *Id.* pp. 251, 256, *et. seq.*

§ The writer has failed to find how long the provision for these courts continued in force; but it is not in the Laws compiled in 1705 or in the Digest of 1819. Perhaps it continued in force until 1690, when a limited civil jurisdiction was conferred on justices of the peace.

|| The smaller sum of forty shillings would have been more usual for a town court, but the larger sum was allowed, because "by reason of wind, water and distance by sea," it was exceptionally inconvenient for the Block Islanders to sue in the General Court.

¶ 2 Rhode Island Colonial Records, 469, 470.

which the title to land was not concerned.* This was doubtless meant to be additional to the powers incident to the office.

The General Court, when full, had eleven judges on the bench, and, as first established, seven, when a bare quorum was present. It is not surprising, in view of the numbers entitled to sit, that the court was seldom full, and too frequently lacked a quorum. The General Assembly felt itself obliged to interpose, for the correction of the inconveniences so caused. So early as 1664 it enacted that when no quorum appeared the absentees should be liable to pay a fine of five pounds each. But the evil continued, and in 1665 had become so gross as, in the language of the Assembly, "not only to expose the colony to reproach among our neighbors, but also to hazard the loss of the charter." Thereupon the Assembly, suspecting that the remissness, as it naïvely expressed itself, was due to the "want of such provision as is usually made in such cases, wherein persons concerned may see themselves strongly obliged—partly through hope of reward in case of attendance, and partly through fear in case of neglect"—allowed the judges each three shillings a day for attendance at court, and subjected them each to a forfeit of six shillings a day for absence without sufficient excuse. It also reduced the number required for a quorum to the governor or deputy governor and four assistants, and as previously, made the absentees, if no quorum appeared, liable to a fine of five pounds each.† Later it was provided that the governor or deputy governor and three assistants, or, in the absence of both the governor and deputy, any five assistants, should constitute a quorum, and in 1690 the governor, deputy governor and assistants, in view of the expenses incident to their offices, were exempted from the payment of colony rates.‡ These changes and appeals to the master motives of hope and fear seem to have been effectual.§

The General Assembly when, in 1663, it ordered that two General Courts of trial should be held every year by the governor or deputy governor and at least six assistants, did not define their jurisdiction, apparently regarding them as successors to the officers who held the court under the code of 1647. Later—but how much later does not clearly appear—the jurisdiction, civil and criminal, was declared to be as ample as that of the English Courts of Common Pleas, King's Bench or Exchequer, or, in other words, to be a general common law jurisdiction.|| In 1686–89 the government was in the hands of Sir Edmund Andros, under James II., and the powers of the General Court, as well as of the General Assembly, were superseded; but in May, 1690, soon after Andros was deposed, they were restored by act of the Assembly.¶ After this, for many years, the business of the court increased rapidly until there was need of two juries, where previously one had sufficed.** A litigious disposition sprung up and spread in the community, leading men to prosecute or defend suits, regardless of justice, carrying the cases from court to court, and even to the General Assembly itself. Some of these cases, we are told, "were of small concern," yet the occasion "of long debate and great expense to the judges." To counteract this evil, the

* Public Laws of 1719, pp. 36, 37.

† 2 Rhode Island Colonial Records, 64, 167, 168, 169, 171.

‡ 3 Rhode Island Colonial Records, 274.

§ In 1695 it was enacted that the governor should be paid ten pounds, the deputy governor five pounds, and the assistants four each. But it does not appear that this was specially for their judicial services, but rather because of a general increase of their duties. In 1698 the governor's salary was increased to thirty, and in 1701 to forty pounds.

|| Public Laws of 1719, p. 15.

¶ 3 Rhode Island Colonial Records, 267.

** Public Laws of 1719, p. 74.

General Assembly, from time to time, increased or multiplied costs, and exacted onerous entry fees; and, in 1718, for further relief, limited the number of attorneys who could plead in any case to two on a side, one of the two to be a freeholder in the colony.*

The next important change in the judiciary took place in 1729, when the colony was divided into three counties, namely: Newport, embracing the islands of the bay and Block Island, with Newport for shire town; Providence, embracing Providence, Warwick and East Greenwich, with Providence for shire town, and Kings, embracing North and South Kingstown and Westerly, with South Kingstown for shire town. A civil and a criminal court were created for each county.†

The civil courts were entitled Inferior Courts of Common Pleas. There were four, and after 1737 (so as to avoid a tie), five judges for each court, three making a quorum, and also a clerk. The judges were chosen by the General Assembly from the county where they were to serve, and, by the law as originally enacted, were to hold their offices during good behavior; but four years later they were made officers of annual appointment, because, as stated in the preamble to the act making the change, the more liberal tenure was found to be inconsistent with the Constitution of the government.‡ The courts sat twice a year and had cognizance of all civil actions, arising or happening in the county, triable at common law, except writs of error and fines and common recoveries. Actions for forty shillings or less, being cognizable in justice courts, could come before them only on appeal, and, unlike other actions, could not be taken by appeal to the Superior Court.§ The jurisdiction was subsequently extended to all transitory actions,—such actions, when between inhabitants, to be maintained only where the plaintiff or defendant lived or where the defendant was arrested. ||

The criminal courts were called Courts of General Sessions of the Peace. They were held in each county twice a year by the justices of the peace of the county or any five of them. They had original jurisdiction of all crimes and offences committed in the county, not capital, and, on appeal, of all criminal cases in which the appellant had suffered sentence in the justice courts of the county. The judgments of the court on appeal were final; in all other cases were subject to appeal to the Superior Court. ¶

These two courts—the Common Pleas and the General Sessions—were held in their respective counties at the same times and places, and the same petit jury seems to have served for both.** The Common Pleas judges were *ex-officio* justices of the peace of their counties in criminal matters, so that, after the fifth judge was added they could, if all were present, hold either court at will. Virtually the Common Pleas, when full, was, in another view, the General Sessions; and, in 1736 and subsequently, the General Assembly recognized this by electing the judges and clerks, nominally, as judges and clerks of both courts, though it was only as justices of the peace that the judges of the Common Pleas were entitled in law to hold the General

* Public Laws of 1719, p. 98; 4 Rhode Island Colonial Records, pp. 52, 53, 104, 153, 239.

† In 1703 the colony was divided into two counties, one embracing the main land, the other the islands, each to have an inferior court of common pleas to be holden twice a year. But it does not appear that the jurisdiction was defined or that any justices were ever appointed to hold them.

‡ Dig. of 1730, p. 192; Dig. of 1745, pp. 201, 171.

§ Dig. of 1730, 190-1-2.

|| Dig. of 1745, pp. 130, 156; Dig. of 1767, p. 47.

¶ Dig. of 1730, pp. 188-9. ** *Ib.*, p. 209.

Sessions.* The latter court continued to exist as a separate court in law until 1838, when it was abolished and its jurisdiction turned over to the Common Pleas.

The General Court, which now received the name of the Superior Court of Judicature, Court of Assize, and General Gaol Delivery, became, as befitted its title, purely appellate, except for writs of error, fines and common recoveries, capital offences, and causes in which the king was concerned. The chief drawback to the new system was that this court continued to be held by the governor, the deputy-governor and the assistants, or a quorum of them, and only at Newport. The governor, deputy-governor and the assistants were political officers, more likely to be chosen for their political than their judicial qualifications. Their tenure of office was more uncertain than it would have been if they had been simply judges. There were many more of them than the court required. On these accounts they were not in a way to acquire judicial habits of mind, or to develop the strong sense of official duty, which is a prime requisite of a good judge. The defects of the court were sure to come more and more to light as the colony grew in population and business, and as, consequently, questions more and more complex and unfamiliar came before it for adjudication. The wonder is that it should have continued to give satisfaction so long as it did.

The confinement of the sessions of the court to Newport, however, was not an unmitigated evil. Newport, prior to the Revolution, was the most important town in the colony. The General Assembly when, in 1715, it made an appropriation for paving one of its streets, denominated it "the Metropolitan Town in this Colony."† Its comparatively large commerce, multiplying its relations with the old world, had a liberalizing effect upon its citizens. From the beginning it had a purer civic sentiment than prevailed elsewhere in the colony, and was less distracted by the antipathies and contentions of an excessive individualism. For a hundred years after the reception of the second charter it was the centre of the political life of the colony, and the home of much the major part of the higher civil officers. It must have been beneficial for the court, and for all who attended the court from other places, to be brought under the ameliorating influences of this broader political and social life. But Newport was not central in location, and, though widely accessible by water, was not easily reached by the remoter mainland inhabitants. In 1746-7 territory which had previously been under the jurisdiction of Massachusetts came under that of Rhode Island, by the final determination of the eastern boundary, and the county of Bristol was erected out of a portion of it.‡ Courts of Common Pleas and of General Sessions were at once established in the new county, and it became too plain for controversy that Newport ought not any longer to be the only place for the sessions of the Superior Court. A change was made in the law, in pursuance of which, instead of the governor or deputy-governor and the assistants, a chief and four associate justices were to be chosen annually by the General Assembly to hold the Superior Court twice a year in every county throughout the colony, and the governor, deputy-governor and the assistants ceased to have judicial power except as the appellate court of probate, and as members of the General Assembly.§

‡ The Digest of 1767, p. 43, has a clause whereby the clerks of the Common Pleas were made *ipso facto* clerks of the General Sessions. The Digest of 1745 has no such clause, and I have not been able to find any record of its intermediate enactment.

† 4 Rhode Island Colonial Records, p. 191

‡ Kent county, the last of the five counties of the colony and state, was created in 1750 out of territory set off from Providence county. The law at first prescribed for it only one session a year of the Superior Court. (Pub. Laws of 1752, p. 77.)

§ Rider's History Tracts, No. 18, pp. 17-20.

In 1798, the Superior Court of Judicature, Court of Assize and General Gaol Delivery, by law then enacted, exchanged its trailing title for that of "The Supreme Judicial Court," and in 1843, under the Constitution, became "The Supreme Court." In 1827 the justices were reduced from five to three, and, a lawyer having been chosen chief justice, the court was required to instruct the jury in the law applicable to the cases tried before it. In 1843, after the adoption of the Constitution, the higher courts were reconstituted. The Supreme Court as reconstituted, had a chief justice and three associates, instead of two, as before. The justices were elected by the General Assembly in grand committee, and, under the Constitution, were to hold their offices, each until his place should be declared vacant, at some annual session of the Assembly, by concurring majorities of all the members elected to each of the two Houses. The Court of Common Pleas was to be held twice a year in each county by one of the justices of the Supreme Court (to be designated by them), and two associates, annually chosen from and for each county by the General Assembly. The Supreme Court justice was to be the chief justice; was to instruct the grand and petit juries in the law, and his attendance on the court was made indispensable to the decision of any cause or question in any cause therein. The associates were apparently retained, as a part of the court, not so much because of the services which were expected from them, as because without them, the break with the old system would have been too sudden and complete to be generally acceptable. It was probably soon discovered that they were rather a bother than a benefit, and in 1848 they were wholly dispensed with.

The jurisdiction of the two courts remained, for a while, much the same as it had previously been. But changes soon began. In 1847 the Supreme Court was invested with original jurisdiction, concurrent with the Common Pleas, in all civil suits in which the debt or damages laid in the writ should amount to one hundred dollars and upwards; and, to put the parties on a par with parties to suits commenced in the Common Pleas where the defeated party could by appealing secure another trial, it was provided that the party against whom a verdict was rendered in any answered case, could have a new trial by filing a written motion therefor and paying, if plaintiff, an entry fee; if defendant, an entry fee and costs, within forty-eight hours. This change increased the business of the Supreme Court so much that, sitting always with at least two justices for a quorum, it could not advantageously dispose of it. Accordingly, in 1852-4, one justice was made a quorum for jury trials, except for the higher crimes; and the court was allowed to be held by different justices, at the same time, in the same or different counties. The same privilege of simultaneous sessions was soon accorded to the Court of Common Pleas. This, without adding to the number of the justices, greatly increased their ability to dispatch the business of the courts. Also in 1852, the Supreme Court, in addition to the exclusive power which it had over the higher crimes, was given original jurisdiction, concurrent with the Common Pleas, over all other offences; and in 1855 appeals from the sentences of justices of the peace and of courts exercising the jurisdiction of justices of the peace, for the petty offences, triable by them, were allowed to be taken to the Supreme Court or, as previously, to the Common Pleas, according as the one or the other was next to be holden. These changes, which had a tendency to increase the business of the Supreme Court, were followed by changes having an opposite tendency. Thus, in 1867, the amount in suit required to give the Supreme Court original jurisdiction in civil actions was raised from one hundred to three hundred dollars. In 1872 the law allowing appeals from sentences of justices of the peace or justice courts to the Supreme Court in criminal cases was revoked. In 1875 the number of the Supreme

Court justices was increased to five, by adding a fourth associate. And in 1878 the right which parties to civil suits, commenced in the Supreme Court, had to a second trial as of course, if defeated in the first, was abolished.* And as two trials could still be had in suits brought and tried in the Common Pleas, if an appeal to the Supreme Court were still allowed, later the appeal was limited to the defendant, and allowed to him only from judgments, submitted to by him on the first or second day of the term to which suit was brought. Also, in 1878, any two justices of the Supreme Court sitting together in the Common Pleas were made a quorum for the trial of indictments for crimes punishable with death or imprisonment for life, such indictments having theretofore been required to be certified to the Supreme Court for trial. No further changes worthy of note occurred until 1891, when a sixth justice was added to the court.

These changes had a double aim. Their purpose was, first, to increase the efficiency of the two courts in the matter of jury trials; and, second, to apportion the work between the two courts so that neither should be overburdened. The later changes were made especially for the latter purpose. The Supreme Court had a large jurisdiction which was exclusively its own. It was the court to which in the last resort all questions of law could be taken for final determination. It was the court of equity, having a plenary chancery jurisdiction. It was the Supreme Court of probate, with revisory power over the settlement of estates and over the appointment of guardians and their accounts. It was the only court for divorce, and it had sole cognizance of numerous special proceedings under the statutes. For the most of these matters a full bench was required, consisting of at least two, and generally, in practice, of three or more justices, two being a quorum. And this large and multifarious business, requiring for its appropriate transaction, not only much time, but also much thought and study, continued to grow from year to year until it alone was enough for the three judges more particularly charged with it. It was a recognition of this by the General Assembly which led, in 1891, to the appointment of a sixth justice, and, shortly afterwards, to a reorganization of the judiciary. But before describing the latter change it may interest the reader to have some further account of the ways in which this increase of jurisdiction and business came about.

As has been before stated, the Superior Court was from the first invested with full common law jurisdiction. In earlier times, however, its principal business, on the civil side, was the trial of jury cases. It sometimes doubtless had a question of law to decide on demurrer or motion in arrest of judgment, and sometimes issued a

* Rhode Island law had always been liberal in allowing trials. In the early times a personal action commenced in the Common Pleas, could be appealed by the defeated party to the higher court; thence to the General Assembly, and thence, if the sum in suit was not too small, to the king in council. There was a law in force in the state for more than a century, allowing a review in jury cases taken by appeal from the Common Pleas to the higher court. Under it either party aggrieved by a judgment of the higher court in any case, in which only one judgment had been given against him, might, by taking the proper steps within a year, have one trial more in that court; so that unless the first two judgments were for the same party, there was opportunity for a third jury trial—the rubber as the old lawyers used to call it. This law did not disappear from the statute book until the revision of 1844, after the adoption of the Constitution. When therefore, the law allowing a second trial as of course was repealed, the claim then made that the repeal was invalid because inconsistent with the clause of the Constitution declaring “the right of trial by jury shall remain inviolate,” was not without plausibility. The Supreme Court, however, decided that the purpose of the clause was to preserve not more than one jury trial in any case, but only the right of trial itself in the familiar form so dear to the Anglo-Saxon race, and sustained the repeal. *Matthews v. Tripp*, 12 R. I. Reports, 256.

writ of error or of certiorari to the lower tribunals; though resort to the two latter proceedings would seldom be necessary, since an appeal to the higher court was allowed in all cases, not commenced in the justice courts, and would furnish a readier remedy. So, too, in early times, if a new trial was wanted for errors in law committed by the Superior Court, or for any miscarriage of justice arising from accident, misfortune or misbehavior by party or jury, the more usual remedy was, not a petition to the court, but an appeal or petition to the General Assembly, or, in some cases, an appeal to the king in council. Indeed, it was not until 1798 that any statute was passed regulating the procedure in petitions for new trial; and it was not until 1822 that power was given to the Supreme Judicial Court to grant new trials in other courts; whereas, in modern times, petitions for new trial and bills of exceptions have been a prolific source of business for the higher court. And so, prior to 1822, probate appeals were taken to the Senate, or governor and council, as the supreme court of probate; and since then, together with other appeals from town councils or courts exercising the same jurisdiction, have been taken to the Supreme Court, and there have often led to long and laborious trials.

Power to divorce was conferred on the court in 1749, having previously been exercised only by the General Assembly. The power then given was to grant an absolute divorce on proof that the party complained of "hath wilfully and wickedly broken and violated the marriage covenant, either by any act done or committed, or by a continual absence from his or her husband or wife, without cause, by the space of seven years." The court was left to decide for itself what acts were wilful and wicked breaches of the marriage covenant, and, of course, the decision was likely to be influenced by the personal views of the judges. Too much was left to their discretion. This defect was corrected in the Digest of 1798. Under it divorces were to be granted where the marriages were originally void, and also "for impotency, adultery, extreme cruelty, wilful desertion for five years of either of the parties, and also for neglect or refusal on the part of the husband, being of sufficient ability, to provide necessaries for the subsistence of his wife, and also for any other gross misbehavior or wickedness in either of the parties, repugnant to, or in violation of, the marriage covenant." The concluding clause, which might seem to open a wide door, has been construed to include only causes of like nature with those that are specified.* In 1844 "continued drunkenness" was added as cause for divorce, and in 1896, "the habitual, excessive and intemperate use of opium, morphine or chloral;" and divorce was allowed where "either party is for crime deemed to be or treated as if civilly dead, or, from absence or other circumstances, may be presumed to be actually dead." As will be seen the law has from the first been very liberal. The law is characteristic of the people who have always strongly favored individualism. The state has been reproached for its laxity; but the list of causes has increased in the face of the reproach.† The state, undoubtedly, is not ignorant of the great

* Stevens 215. Stevens, 8 R. I. Rep. 557.

† It is because of this reproach that the writer has so fully stated the scope of the law. The reproach comes more from without than from within the state. It has been largely provoked by the fact that citizens of other states, some of them of much social distinction, have frequently come to this to get divorce for causes that would not avail them at home. The law of Rhode Island requires that, to give the court cognizance, the petitioner shall show that he or she is a domiciled inhabitant of the state and has resided in it for a year before preferring the petition. This restriction has too frequently been evaded by petitioners, who have without scruple laid claim to such a domicil, and supported their claim by factitious proof, when their purpose, as shown in the sequel, was to get a divorce and return to their former place of abode. For this evil the best remedy would be a sufficient law of divorce, uniform for all states, passed by Congress under an amendment of the federal Constitution.

value of stable marriages. The state in the larger view subsists in its people, and the best source of the people, and its truest school in the elementary virtues, is the family; and hence the preservation of the family as an institution is vital to the state. Nevertheless for one cause divorce is generally recognized as right; and the state of Rhode Island is apparently not yet convinced that there should be only one cause, so long as there are other causes, often as pernicious in their effects, and almost as sure to bring misery, demoralization and even ruin on the family. In such circumstances divorce is frequently a door which opens to let the family out of degradation into a better life. But, whatever be the truer view, the system of comparatively easy divorce has long existed in Rhode Island and been a source of much, and constantly increasing, business for the higher court.

The higher court, as originally established, had no equity jurisdiction, though, with laymen for judges, the technical distinction between law and equity was probably not much regarded, so long as what seemed just and right could be effected by common law processes. Cases, on appeal to the General Assembly, were avowedly decided as to the assembly "appeared agreeable to law and equity."* The common law, with its trials of clearly-defined issues in public before court and jury, was more popular than chancery with its looser range and more covert methods. Indeed, in the early times, with judges untrained in the law and subject to frequent changes, the exercise of a broad, chancery jurisdiction would have been impracticable. Nevertheless, the General Assembly soon began, and from time to time continued, to grant chancery powers for particular purposes. Thus, in 1729, power was given, on entering judgment on any specialty, conditioned for the payment of money, "to *chancer down* such instrument to the just damages."† In 1746 the court was required, where any penalty or conditional estate or equity of redemption was sued for, "to proceed according to the rules of equity, and enter up judgment for the just debt or damages."‡ In 1798 the court was empowered to entertain a bill to redeem;§ and in 1822 a bill for foreclosure.|| Likewise jurisdiction on appeal from town councils was granted over property held for charitable uses.¶ In October, 1829, the jurisdiction was given in cases relating to trusts created by assignments for the benefit of creditors; in May, 1836, it was extended to trusts of real and personal property, however created; in June, 1836, to all controversies between partners, relative to or growing out of their partnership or its concerns; also to proceedings against banks for forfeiture of charter and liquidation; in January, 1837, to cases against railroad and turnpike corporations, to restrain them from violating their charters; and in February, 1841, to all cases of fraud. These successive grants, increasing in frequency with the years, show a growing sense of the need of chancery powers to deal with the increasing complexities of business and also a sort of tentative cautiousness in conceding them. The need was met in some degree by the General Assembly, and more fully by the United States Circuit Court; for, the state being small, it was quite easy and quite usual for the citizen who wished to sue in equity, to change his residence to Connecticut or Massachusetts, and then bring his suit in the Circuit Court for the Rhode Island district. This practice, while in some ways it may have tended to delay the extension of the jurisdiction, was in other ways favorable to it, by familiarizing lawyers and litigants, and, through them, the people, with its advantages. The new constitution of the state, by giving to the judges of the Supreme Court a more permanent official tenure, increased the public confidence in it. The Constitution

* Dig. of 1719, p. 33.

† Dig. of 1730, p. 193.

‡ Dig. of 1752, p. 29.

§ Dig. of 1798, p. 374.

|| Dig. of 1822, p. 211.

¶ *Ib.*, p. 253.

authorized the conferring of chancery powers on the Supreme Court, but not further, on any other court. It went into effect in May, 1843, and the next year in the revision of the laws then made the Supreme Court was invested with full chancery jurisdiction. The cases in equity have since then constantly increased, until now they constitute a very large part and—in the attention, thought and study which they exact—the more onerous part of the business of the court on the appellate side.

To the business thus described must be added business resulting from statutes conferring jurisdiction for particular purposes; as, for instance, the statutes relating to relief under the writ of habeas corpus, to mechanics' liens, to the winding-up of insolvent business corporations, and now to proceedings in insolvency, which, unless the recent law is soon superseded by a United States bankruptcy act, promises to furnish more or less work for the court every year. But enough has been said without further specification to show that there was good reason not only for the addition of the sixth judge, but also for a re-construction of the judiciary, if in that way the labors of the court could be facilitated.

The Judiciary Act was passed in May, and went into effect in August, 1893. By it the Court of Common Pleas was abolished and its jurisdiction transferred to the Supreme Court;—a change which, inasmuch as the Court of Common Pleas had been held, ever since 1848, solely by justices of the Supreme Court, was, so far, rather a change in form than in substance. Under the act the Supreme Court is held in two divisions, denominated respectively the Appellate Division and the Common Pleas Division. Jurors are provided only for the Common Pleas Division, and, accordingly, all indictments are found, and tried, when tried by a jury, in that division; and all other cases at law, civil or criminal, which are or may be entitled to jury trial, have to be brought there originally, or taken there on appeal or certification for such trial, if wanted. Even issues out of chancery have to be sent there for jury trial. Thus the Common Pleas Division is almost wholly occupied with jury trials, or with matters connected with them or with the disposal of cases in which there might have been such trials. On the other hand the Appellate Division has, except said work of the Common Pleas Division, the jurisdiction which the Supreme Court previously had, with some enlargement. Thus it has power to grant trials and new trials for the causes for which the Supreme Court formerly granted them; and it also has a power such as the Supreme Court did not formerly have; namely, in cases pending in the Common Pleas Division, where questions of law have been raised by demurrer, special verdict, motion in arrest of judgment or case agreed, power to decide the questions immediately, the cases being certified to it for that purpose, instead of waiting until after the Common Pleas Division has disposed of the cases, and then hearing and deciding them on bills of exceptions or petitions for new trial. The power is well calculated to save labor and expense and to expedite the final determination of cases. This, however, is not the place for a discussion in detail of the procedure under the judiciary act. The title of the act, as originally enacted, was "An act to simplify the duties, equalize the burdens, and increase the efficiency, of the judiciary of the State;" and it was a title which very appropriately described the act.

Under the act the court in its two divisions is to be held or may be held in the following manner. The Common Pleas Division is to be held by one or more of the justices, designated by the chief justice, or in case of his absence or disability, by the senior associate;—one justice being a quorum for all purposes, though more than one may sit. The division may be held by different justices at the same time, in different places in the same or different counties. In practice three justices are

designated, two of whom usually hold the division, each sitting separately, in Providence county, and the third in the other counties. The Appellate Division is to be held by the chief, or in case of his absence or disability, by the senior associate, and two other associates, designated by the chief or senior associate, any one of whom is a quorum to try and dispose of uncontested divorce petitions, and petitions or bills for the appointment of trustees, and to make interlocutory orders and decrees in bills or proceedings in equity, and final decrees therein, when they are defaulted or when the decrees are entered by consent, while in contested cases and proceedings in equity and in other cases, involving controversies of law or fact, three justices are required for a quorum, unless, when one of the justices, designated to hold the division, does not sit, the parties consent to go on before the other two, provided that in disposing of constitutional questions there shall always be at least three in session, and as many more as it is practicable to secure.

It remains to give some account of the jurisdiction exercised by justices of the peace,* town councils, or Courts of Probate, and the General Assembly.

The primary function of justices of the peace was to prevent breaches of the peace, and, when offences were committed, to have the supposed offenders, on complaint, arrested, and, on proof of their probable guilt, to commit or bind them over for trial in the proper tribunals. Jurisdiction to try, convict and sentence, however, was soon given them over some of the minor offences, such as assault and battery, profane swearing, petty thefts, etc., subject, generally, to a right of appeal to a higher court, with a jury. At first, two justices, at least, were generally required for a quorum. Jurisdiction in civil cases was first conferred in 1690, two or more justices being then empowered to try actions for debt or trespasses, and, soon afterwards, personal actions generally (not involving the title to real estate), to the amount of forty shillings, subject to appeal.† In 1743 the amount that might be sued for was £5; in 1753, for a while, £10; and in 1798 \$20. In 1763 one or more justices were made a quorum to try actions for not more than forty shillings; in 1784, for not more than £6, silver; and in 1798, for not exceeding \$20. In 1844 every justice of the peace, with no provision for more than one, was empowered, subject to appeal, to try suits for \$20 or less; and to try, convict and sentence, for offences punishable by fine of not more than \$20, or by imprisonment for not longer than three months; and, under special provision, for offences more severely punished; and also to commit or bind over to the proper court for offences of a graver character. In 1857 the amount that might be sued for in civil cases was raised to \$50.

From early times justices of the peace were elected or appointed, from among the inhabitants of the towns in which they were to serve, by both the towns and the General Assembly. Justices were thus not infrequently appointed who were but poorly qualified for their judicial functions, and who yet might be called upon to discharge them. Generally, however, there would be among the appointees some having an aptitude for trying cases, who, because of it, would be called upon the more frequently to hold court, and, improving by practice, would acquire a reputation, which would lead to their re-election from year to year, so that the evils that were possible under the system would not be so prevalent as might be supposed. But for this, the system could not have lasted as it did. Still its defects were too apparent not to pro-

* There were in some of the towns wardens, so called, having the powers of justices of the peace, and the assistants were *ex officio* justices of the peace. (1 Rhode Island Colonial Records, 101.) These may therefore be regarded as included under the designation of justices of the peace.

† 3 Rhode Island Colonial Records, 277; Dig. of 1719, p. 37.

voke criticism, and incite the desire for reform; especially in the cities and more populous towns, where the call for justice courts was most frequent. In January, 1845, a Court of Magistrates, so called, was established for the city of Providence. It was to consist of seven magistrates, to be annually appointed by the city council, out of the justices of the peace for the city, appointed by the General Assembly or the city, and was invested exclusively with such jurisdiction in civil and criminal cases as had been or might be given by law to justices of the peace of other towns. Power was given to the justices to elect their own president and clerk. Four of them were to be a quorum. In May, 1846, their number was reduced to three, with two for a quorum. In January, 1848, a committee of the General Assembly, appointed to inquire concerning the expense of the court, reported that it was fully satisfied that the laws were better administered, and more cheaply, by it, notwithstanding the great increase of business, than under the single-justice system. There was, therefore, no return to the old order; but, subsequently, other laws were enacted, under which the justices were appointed by the General Assembly, and paid by the state. Similar courts were also established in Newport, Woonsocket and Pawtucket. In 1867 the town councils of the several towns, where such courts had not been established, were empowered to appoint, from the justices of the peace of their respective towns, trial justices to hold justice courts, exclusively, therein, and their original jurisdiction was raised in civil cases to \$100. In 1872 it was made obligatory on such town councils to appoint such trial justices, who, by the law then passed, were to hold their offices for three years. In May, 1886, an act was passed dividing the state into twelve judicial districts, and providing for the establishment in each district of a court to be held by a justice, elected by the General Assembly for the term of three years. Six of the courts were to have clerks, to be elected by the General Assembly for three years, with power to hold the court in case of the absence or inability of the justice. The jurisdiction of these courts in criminal matters was generally the same as the jurisdiction of the justice courts had been. An exclusive original jurisdiction was given them in all civil actions, wherein the debt or damages demanded did not exceed \$100; and an original jurisdiction, concurrent with the Court of Common Pleas, in all civil actions wherein the debt or damages demanded did not exceed \$300; and concurrent with special Courts of Common Pleas, over all actions for the recovery of tenements or estates let within the district. By the revision of 1896, the exclusive original jurisdiction was given in all such cases, except that, in towns where there are wardens elected under the town charter, the wardens are allowed a jurisdiction concurrent with the courts. The law contains many other provisions for furthering in many ways the usefulness and efficiency of these courts, which come so closely home to the citizens; but room is wanting to state them more in detail. It must suffice to say that the system seems so far to give great satisfaction, and bids fair to remain, indefinitely, the system of minor judicature for the state.

The code of 1647, committed the probate of wills in each town to the head officer of the town. It also made it the duty of persons, having property, to dispose of it by will, and provided in effect that, if any one of them failed to do so, the head officer, together with the common council of the town, should draw up a will for him, making "an equal and just distribution of his estate among those to whom it does belong." Subsequently, the title of head officer, having become extinct, the jurisdiction passed to the town Councils.* Judge Staples, in a note to the code, states that "it was not an unusual thing, at least in Providence and Warwick, for

* 2 Rhode Island Colonial Records, 525-6.

the town councils to draw up a paper in the form of a will, reciting the intestacy of the deceased, and, disposing of the estate among his heirs, apparently at their discretion." He cites a case in which the Providence town council, not content with a simple division, "disposed of part of the real and personal estate to the widow, part for life and part in fee, and divided the residue among the children as tenants in fee tail general, with cross remainders." * But it may be questioned whether, in this case, the town council did not exceed its power.† How long the power continued in use does not precisely appear; but, in the compilation of the laws made in 1705, there is no trace of it. Power to settle the accounts of executors and administrators was not given to town councils in the code, but conferred afterwards. Other powers were conferred from time to time. Thus, power was given, in 1715, to lay out highways if the town proprietors did not lay them out; in 1721, to inquire into and redress the misemployment of property held in trust for charitable uses; in 1742, to appoint guardians; and in 1748, to determine the settlement of paupers and order their removal to the towns in which they belonged. These powers were extended from time to time and improved in point of procedure, and further powers were also conferred; for instance, powers to make partition of the real estate of persons deceased, to assign dower and to sanction the adoption of children. The powers, it will be observed, are many of them very important, often requiring, for their appropriate exercise, not only good common sense, but also legal acumen; and yet they have long been exercised, quite satisfactorily, by men generally without special knowledge of the law. It is true that in the cities special tribunals have been created with jurisdiction in probate and allied matters; but the country towns like and hold to the earlier system. Of course the right of appeal is an effectual safeguard; but, except in cases of disputed wills, appeals are infrequent. It will be noted, however, that the jurisdiction is largely a protective jurisdiction, under which rights and interests are not so much to be determined in matter of law, as guarded in matter of fact, and in the exercise of which a disposition to do what is right and to see that no one, however incapable of caring for himself, suffers injury, is much more requisite than to be technically learned. Naturally the people, especially of the country towns, prefer, for such a jurisdiction, a court composed of men who know them and feel a neighborly interest in them and their families, and who can be easily approached, to a more formal tribunal. And it speaks highly for the general conduct of such courts, that the public, after an experience of more than two centuries, continues to have such confidence in them. But still the changes that are going on in the population of the country towns are so great, that it is hardly safe to take the past as a sure index of the future.

The charter of 1663, empowered the General Assembly to establish judicial tribunals—not to act as such a tribunal itself. At that time, however, the powers of legislative bodies were loosely construed, and the members of the assembly, coming from towns where they had recently been accustomed to the exercise of judicial functions in town meetings, were naturally disposed to continue the exercise in the assembly. Still there was at first some hesitation, for when, in 1678, a petition was presented for the revision or reversal of a judgment of the General Court of Trials, the assembly refused, declaring that it did not belong to it "to judge or reverse any sentence or judgment passed by the General Court of Trials, according to law, except capital or criminal cases, or mulct, or fines."‡ Nevertheless, in 1680, it passed an

* See also Providence Town Records, Vol. 1, pp. 30, 31-2-3-4.

† Providence Town Records, Vol. 11, p. 108.

‡ Rhode Island Colonial Records, 19, 20.

act, allowing appeals to the General Assembly from the General Courts of Trials, after judgment "in all actional cases" brought therein.* The practice under this act did not escape censure. In 1699, the Earl of Bellomont, after inquiring, pursuant to instructions from the crown, into the conduct of affairs in the colony, reported, among other things, that "The General Assembly assume a judicial power of hearing, trying and determining of civil causes, removing them out of the ordinary courts of justice and way of trial according to the course of the common law, alter and reverse verdicts and judgments, the charter committing no judicial power and authority unto them."† The assembly could not have been unapprised of this report; and yet, in 1705, excusing itself by way of preamble for not creating "a court of chancery," because of the "mature consideration" which would be required "for orderly settling thereof," it enacted that "the General Assembly, at all times convened in general assembly, shall be a court of chancery, as formerly it hath been, until such time as a more proper court may be conveniently erected and settled."‡ The assembly does not appear to have taken further steps for several years. In 1708, in *Brenton vs. Remington*, an action of trespass and ejectment for the recovery of a tract of land, which had been in the possession of the defendant for more than twenty years under a mortgage, the Assembly, on appeal, reversed the judgment of the General Court of Trials for the defendant, on the ground that "on extraordinary occasion" a possession for twenty years did not bar the right to redeem. The defendant took an appeal to the Queen in Council, where the proceedings of the Assembly were quashed and "utterly condemned" for want of jurisdiction. The General Assembly, on receipt of this decision, acknowledging its error in assuming to try the appeals to it, abolished the law under which they had been taken; at the same time, however, declaring that "the said appeals may be by way of petition to this or any other Assembly in this colony."§ This was in 1712; but subsequently the Assembly, in view of the fact that *Brenton vs. Remington* was an action involving the title to land, seems to have concluded that the quashing of the proceedings before it did not preclude it from entertaining appeals in personal actions; for in 1715 it tried such appeals; ||and there is in the Digest of 1719, a law allowing them to be taken.¶

In the trial of the appeals the two houses of the assembly sat together. Members, who were lawyers, naturally took a prominent part,—sometimes offensively so to the other members. This is apparent from an act passed in 1729, in which the General Assembly, reciting that "the sitting of lawyers, on hearing of appeals from the General Court of trials, is found to be of ill consequence," enacted that no practising lawyer should be chosen a deputy for any town. The act was repealed at the next session because "inconsistent with the right of his majesty's subjects in this colony;" but the passage of it indicates that the assembly, while acting as a judicial tribunal, did not always preserve a judicial temper.

The General Assembly, in the exercise of its appellate jurisdiction, was pleased to style itself a Court of Chancery. Of course it was not such in the technical sense of the word. Sometimes it did the work of a Court of Chancery in an irregular way; and sometimes it attained to what it deemed to be an equitable result by an admixture of special legislation, thus introducing into the administration of justice an element of uncertainty, which could hardly fail in the long run to be detrimental. The assembly in 1741 repealed the act allowing appeals to it, because, as it declared,

* 3 Rhode Island Colonial Records, p. 87.

† *Ib.*, p. 386.

‡ *Ib.*, p. 550.

§ 4 Rhode Island Colonial Records, pp. 136-7.

|| *Ib.*, p. 199, 200.

¶ Digest of 1719, p. 35; Digest of 1730, pp. 29, 192.

the trial of them had been found to be prejudicial, as well to the parties having their causes so determined, as to the government by causing the public business to be neglected. At the same time it established a court of five judges, styled a Court of Equity, to hear such appeals and dispose of them "agreeably to law and equity, in as full and extensive a manner as the General Assembly hath been accustomed to do." * Two years later the court was abolished, experience having shown that the trial of cases in it was "inconvenient and a great grievance to the inhabitants." Appeal to the assembly was not restored, but, in lieu of it, another trial, on writ of review, was allowed in the Superior Court to any party aggrieved by the judgment thereof, if the party had once obtained judgment in either that or the Inferior Court. † This left to litigants only one way open to the General Assembly; namely, by petition. This way was much resorted to for more than a century. Petitions for trial or new trial were frequent;—the ground of them generally being accident, mistake, surprise, faults in the make-up of the jury, newly discovered testimony or other exception to the fulness or impartiality of the trial, and sometimes even alleged error in law on the part of the court. There were also petitions, preferred and granted, for change of venue, for leave to file pleas, or to take and enter appeals out of due time, and for other similar relief. Without doubt the immediate ends of justice were often furthered; but, during the pendency and in the trial of petitions before the assembly, there were, of course, exceptional chances for the operation of other than judicial influences and motives, and, it is pretty safe to assume that, in the fierce struggles of adversary interests, these chances were sometimes turned to account. Moreover, the fact that such petitions would be entertained operated as an encouragement to prefer them, when there was no reason for preferring them, but delay, litigiousness or the desire to force a compromise. There is nothing in this part of Rhode Island history that impugns the policy of confining each department of the government strictly to its own work. Indeed, the assembly itself recognized the soundness of this policy as applied to the judiciary; for in 1780 it enacted that no member of the assembly should exercise the office of justice of the Superior Court; the reason given being that "it is incompatible with the constitution of this state for the legislative and judicial powers of government to be vested in the same persons." The same law was soon afterwards extended to justices of the common pleas.

The General Assembly exercised a judicial or *quasi*-judicial jurisdiction irrespective of the courts, which was very diversified. As has been stated, it was not until 1749 that any court had power to divorce, all divorces previously having been granted by the assembly. So far as appears the assemblymen, in granting or refusing to grant, voted severally in each particular case according to their personal judgments or feelings, or as they were led by the influences of the moment, without the guidance of any general rule or usage. ‡ Sometimes, when divorce was granted on petition of the wife, the husband's real and personal property in the colony was secured to the wife for her or her children's benefit. § In one case husband and wife, who were living apart, joined in petitioning for divorce, and the assembly, though it could find no sufficient ground for an absolute divorce, sanctioned a continuance of the separation and confirmed the husband's deed making provision for his wife and children. || In cases of desertion by the husband the assembly sometimes summarily sequestered his estate in the colony for the wife's support. ¶ And after power to

* 5 Rhode Island Colonial Records, 22; Dig. of 1745, p. 239.

† 5 Rhode Island Colonial Records, p. 76. ‡ 2 Rhode Island Colonial Records, p. 543.

§ *Ib.*, p. 164.

Ib., p. 188.

¶ 2 Rhode Island Colonial Records, p. 119; 3 Rhode Island Colonial Records, pp. 105, 124.

divorce was conferred on the Superior Court the assembly continued to exercise it, where the causes or circumstances were exceptional, or else sent the petitions to the court with discretionary power to try and dispose of them. It was not until 1850 that it finally ceased to grant divorces.

The assembly in its early years acted in many matters which were afterwards given over to the courts. Thus it granted to executors, administrators, guardians or trustees leave to sell the land of their testators, intestates, wards or *cestuis que trustent*, and sometimes appointed a new trustee in place of an old one deceased. It also granted relief in insolvency, on petition therefor, by special acts, and later, when in 1844 it conferred a full jurisdiction therein on the Supreme Court, did so subject to appeal to itself by petitioners or creditors, as either might be interested to take it.* It likewise exercised powers, more or less judicial in a variety of other miscellaneous matters, and it was very prompt to resent and punish anything savoring of disrespect or indignity to itself.†

The Constitution of the state contains the usual distribution of the powers of the government among the three departments, legislative, executive and judicial, and provides that the judicial powers shall be "vested in one supreme court and in such inferior courts" as the General Assembly may establish. It also contains the following clause: "The general assembly shall continue to exercise the powers they have heretofore exercised, unless prohibited in this constitution." It was under this clause that the assembly continued to exercise judicial powers. In 1854 it passed an act reversing and annulling the sentence of Thomas W. Dorr and directing the clerk of the Supreme Court to write across the record of the judgment the words: "Reversed and annulled by order of the General Assembly at their January session, A.D. 1854."

The succeeding assembly, being differently constituted, asked the judges of the Supreme Court for their opinion on the constitutionality of the act.‡ The judges replied that in their opinion the act was unconstitutional and void. They stated that any other construction was inconsistent with the distribution of the powers of government as declared in the Constitution, and with the provision that the judicial power should be "vested in one Supreme Court and in such inferior courts" as the General Assembly might establish; since the assembly could not exercise judicial power if it did not have it, and it could not have it because it was required to be *vested in the courts*. They also argued that the words "one Supreme Court" mean not simply a court so named, but a court that is in reality supreme; whereas the court would not be supreme if its decisions were subject to reversal by the assembly; remarking further, that if its decisions were subject to such reversal, the assembly could overrule the court when it decided that an act passed by the assembly was unconstitutional, and so re-affirm its constitutionality beyond redress. The judges were of the opinion that it was not possible that it was intended that the assembly should have any such power. In regard to the section continuing to the assembly the powers previously exercised by it unless prohibited, the judges remarked that the section was in the article entitled "Of the Legislative Power," and was, presumably, intended only to cover such a power; and, moreover, that the exercise of it was prohibited by implication, by the vesting of the judicial power in the courts, the prohibition so implied being as effectual as if it were expressed. The judges, however, did not deem it necessary to follow their logic to its full conclusion, since the act in regard to which

* Digest of 1844, pp. 210-14-15.

† Rider's Historical Tracts, No. 18, pp. 44-8.

‡ The Constitution provides that the judges "shall give their written opinion upon any question of law, whenever requested by the governor or by either house of the General Assembly."

their opinion was asked, purported (not to simply grant a new trial, but) to reverse and annul a judgment—something that the assembly had not previously done except in insolvent appeals, since long before the adoption of the Constitution. Therefore, while they pronounced the act unconstitutional, they disavowed any intent to impugn the practice of the assembly in so far as it had prevailed down to and after the adoption of the Constitution—apparently intimating that the practice might be sustained “on the ground of construction by acquiescence, and danger to titles by disturbing it.” The opinion, drawn up by Chief Justice Greene, was exceedingly clear and convincing, except in the latter particular. Of course, the question could not rest without a more conclusive settlement. In 1856 it came before the Supreme Court in a case involving the power of the General Assembly to grant new trials. The court decided that the judicial power under the Constitution vested exclusively in the courts, and declared that the Constitution was too unambiguous for the subsequent practice of the assembly to be entitled to any weight with the court in construing it. The opinion of the court, which was delivered by Chief Justice Ames, was very learned and elaborate, discussing the question in all its aspects, on both principle and precedent. Subsequently the matter was much controverted in the assembly in the debate on the petition for a new trial of the case of *Ives v. Hazard*, but without effect. The petitioner in that case, who was the defendant, was granted leave to withdraw in 1860, since when the General Assembly has not assumed to exercise any strictly judicial power, and it may now doubtless be regarded as settled that henceforth the judiciary will hold, without further question, its rightful position as a co-ordinate branch of the government.

The reader may find the foregoing account, in its numerous details, somewhat dull, but it shows, unusually well, the manner in which a proper judiciary is naturally developed in a self-governing community. The early settlers, as Englishmen, brought with them the English common law, and doubtless were often guided by it, when they supposed they were following simply their own common sense or the law of God as revealed in the Bible. The charter of 1663 made the law of England the law of the colony, so far as it was suitable to the nature and constitution of the place and people. Under the charter, the General Assembly retained the General Court of the colony, and made the governor, deputy governor and the assistants, *ex officio*, the judges to hold it; and afterwards, when in 1729 it gave the court a new name, still continued them in their judicial offices. It seems strange to us that they should have been so continued, because we are inclined to think that their election as legislators and political officers could not have given much assurance of their fitness to serve as judges. But to judge fairly of an institution of the past, we must not forget to look at it through the eyes of its contemporaries. The Higher Court was held by the governor or deputy governor and the assistants, from 1664 to 1747, more than eighty years. During this time, and especially during the earlier years, the population was small, the business for the court was small, and the cases tried before it were generally simple, turning mainly on questions of fact for the jury; so that, ordinarily, judges who used good common sense would be substantially in accord with the law. And it may well be that in the earlier years the assistants, who, with the governor or deputy governor, would the more willingly undertake to act as the quorum required to hold the court, would make a better tribunal than would be made by judges annually chosen by the General Assembly for that sole purpose, since the two offices of judge and assistant combined, might attract men of higher capacity than would be attracted to the judicial office by itself. But, with the increase of wealth and population, came new pursuits, new enterprises, new forms of business, a more varied

social life, and brought with them many new questions of law and an increase of litigation. The citizens then began to feel the need of a more convenient, if not a better, administration of justice, and as the need gradually became more urgent, the General Assembly recognized and responded to it, notably in 1729, by establishing an Inferior Court of Common Pleas and a Court of General Sessions of the Peace for each of the three counties into which the state was then divided; and again in 1747, by superseding the court held by the governor or deputy governor and assistants, in Newport only, by the Superior Court held twice a year in each county of the colony by five judges, annually appointed by the General Assembly. Then followed, from time to time, the changes by which the jurisdiction of the courts—of the higher court especially—was enlarged, their procedure amended, their constitution and *personnel* improved, and by which the powers of the probate and the justice or district courts were extended and raised. Some of these changes were very slow to come, but they were slow to come because the people, unenlightened by the newspaper press, were slow to realize the need of them; and the General Assembly, in making them, pursued no general theory, which might have led them to anticipate the popular demand, and seldom borrowed from another state, but made them as the need became strongly felt or clamorous, and then with special adaptation to the exigency. The improvements were thus an outgrowth from the character and circumstances of the people—an evolutionary development which kept the judiciary, progressively, in accord with the people—and so their proper organ for the administration of justice.

The relations, formerly existing between the general assembly and the higher court, were not uniformly harmonious. The court did not always submit with easy grace to the assembly. This appears from the case of *Randall v. Robinson*. In that case the jury, in the Court of Common Pleas, returned a special verdict finding the facts, and leaving the court to render judgment for the plaintiff or the defendant according as it might find the one or the other entitled by law. The Court of Common Pleas rendered judgment for the plaintiff. The case was taken by appeal to the Superior Court by both parties, the plaintiff desiring a trial there, probably because not satisfied with the damages awarded below. The Superior court refused to let the case go to the jury again, but, against the plaintiff's protest, treating the special verdict as conclusive of the facts, reversed the decision below and gave judgment for the defendant. The plaintiff petitioned the assembly for a new trial to the jury and the assembly granted his petition. The jury found for the plaintiff. The court set the verdict aside, and, on motion of the defendant, gave judgment again in his favor on the special verdict. The plaintiff, on petition to the assembly, secured another jury trial, and recovered a verdict, which the court again set aside, as against the law and the evidence, and ordered a new trial. But the assembly, on further petition by the plaintiff, directed judgment in accordance with the verdict last returned, thus arbitrarily wresting from the court the right of final judgment.*

A more famous instance of disagreement between the court and the assembly is furnished by the case of *Trevett v. Weeden*; a case which grew out of the paper-money legislation of the state. In May, 1786, the assembly passed an act for the issue of £100,000 in bills of paper, to be apportioned among the several towns and lent on the credit of real estate of twice their face value. The bills when put in circulation were to be legal tender for the payment of debts due and contracted or to become due and contracted. In June of the same year the assembly passed an act

* Rider's History Tracts, No. 18, 39 to 44.

under which any person having and exposing any article for sale and refusing the price of it in the bills at par, was made liable, on conviction, to a forfeiture of £100, one-half to the complainant and the other half to the state. No provision was made for suits out of the regular course, and it soon became manifest that prosecutions, to be effective, must be summary. Accordingly, in the August following, the assembly met at the call of the governor and passed another act, under which the forfeiture was reduced to not less than six nor more than thirty pounds, recoverable on a *quidam* information in either the Superior Court or Court of Common Pleas, specially convened for the trial. The information was to be lodged with one of the judges, who thereupon was to issue process to the accused to appear in person at the court, and make answer, three days after date. He was also to notify his associates. The act did not authorize the court to empanel a jury, but provided that it might proceed without one, "according to the laws of the land," and that the judgment should be final and without appeal.

The charge in *Trevett v. Weeden* was that Weeden, a butcher, on the 13th of September, 1786, refused to receive the newly issued bills, when offered by Trevett to pay for meat which he, Weeden, had and was exposing for sale in open market. The proceeding followed the form prescribed by the August act. The process was dated September 18th, and commanded Weeden to appear in person at the court to be especially convened on the 21st at Newport, and there make answer. On the 21st the judges all being present, it was ordered by them, apparently of their own motion, that the court and the business pending before it be adjourned over into the Superior Court then in term and to be in regular session the next day.*

The case came up for trial on the 25th before the court in term, and was tried on a plea to the jurisdiction, assigning three reasons why the court should not take cognizance of it. The first was that it appeared by the act, on which the information was founded, that the act had expired. The second was that the matters of complaint were by said act triable by special courts uncontrollable by the Supreme Judiciary Court of the state. The third was that "the court is not authorized or empowered by said act to empanel a jury to try the facts charged in the information, and so the same is unconstitutional and void." The case was argued for the defence by James Mitchell Varnum with great power and eloquence. The next day (September 26th) the court rendered its judgment, which was "that the said complaint does not come under the cognizance of the justices here present and that the same be and is hereby dismissed."

The record, as will be observed, did not disclose the reason or reasons for the decision. The *Newport Mercury*, under date of October 2, 1786, gives a brief account of what took place when the judgment was announced. According to that account Judge Howell was the first to speak, and declared "the penal law to be repugnant and unconstitutional," and therefore gave it as his opinion that the court could not take cognizance of the information. "Judge Davol," the account proceeds, "was of the same opinion." Judge Tillinghast took notice of the striking repugnancy in the expression of the act, "without trial by jury . . . according to the laws of the land," † and Judge Hazard voted against taking cognizance. The

* 10 Rhode Island Colonial Records, p. 219. See also the Minute Book of the Superior Court at Newport, which seems to give the process an earlier date. It also suggests the supposition that the adjournment was made to give the court the benefit of the services of the clerk and other court officers, there being no provision for such officers in the August Act.

† The meaning, doubtless, was that the right of trial by jury was a fundamental or constitutional right, so that a trial according to the law of the land must, by force of the terms, be a jury trial.

chief justice declared the judgment of the court without giving his own opinion. A brief account is also to be found, under the date of October 5, 1786, in the *United States Chronicle*, a Providence newspaper. It represents that two points were insisted upon and unanimously agreed to, namely, the second and third of the plea; that four of the judges appeared to be decidedly against the act, two of whom spoke to the subject, and it then adds, rather inconsistently with its representation of unanimity, that the chief justice did not publicly declare his sentiments, as the case was decided without his voting. The reason first assigned in the plea, which was not much pressed, does not appear to have influenced the decision. The common and, for aught that appears, the universal, contemporary understanding was that the court had decided that the act under which the case was prosecuted, was unconstitutional and void, and, accordingly, that the complaint must be dismissed; since the act, if void, would no more give the justices cognizance of the complaint than if it had never been passed.

The decision, so regarded, was without precedent either in Rhode Island or elsewhere; and, when it became known, created an immense sensation. The general assembly met in October, and immediately passed a resolution that the justices be cited to "assign the reasons and grounds" of their judgment. The preamble to the resolution reflects the astonishment of the assembly. After reciting the judgment as one in which the court had "declared and adjudged an Act of the Supreme Legislature of this State to be unconstitutional, and so absolutely Void," it goes on to say that "it is suggested that the aforesaid judgment is unprecedented in this State, and may tend directly to abolish the legislative authority thereof."

The assembly was composed of two parties, one for and the other against paper money; the paper money party, inflamed and embittered by the decision, constituting the majority, so that the justices could hardly expect to have an impartial hearing. Only three of them appeared, the other two being unwell. This caused a postponement until a later session the same month. At the later session again only three—Hazard, Tillinghast and Howell—appeared, but the assembly decided against further delay.

There is no full account of what took place; but Varnum, who published a pamphlet about the case, relates that David Howell, the youngest of the justices, first addressed the assembly, and was upwards of six hours upon the floor. He began by remarking that the judges had possibly been called upon for their reasons in one or the other of two views; namely, either to assist the assembly in matter of legislation, or as being accountable to it for their judgment. In the former view he declared that the judges were willing to render their assistance; but, in the latter, claimed that they were accountable only to God and their own consciences. In the former view he then proceeded to point out the objectionable parts of the act under which the information had been preferred, and according to Varnum, "most clearly demonstrated, by a variety of conclusive arguments, that it was unconstitutional, had not the force of law, and could not be executed." Varnum presents no report of this part of the address, but states that, while adducing many additional authorities of the first eminence, it was in line with his argument to the court, which he has very fully reported. If so, the argument rested mainly on two grounds. The first was that the charter conferred on the assembly the power of making laws in Rhode Island only so far "as such laws be not contrary and repugnant unto, but, as near as may be, agreeable to the laws of our realm of England, considering the nature and constitution of the place and people there." Under this restriction, it was contended that the assembly, notwithstanding that the colony had become inde-

pendent, was still limited so far at least that it could not "abridge the people of the means of securing their lives, liberty and property, to preserve which they have ever considered the trial by jury the most effectual." The second ground was that, independently of the charter, it was to be assumed from the nature of the grant, that the legislative power was given and had been continued to the assembly, under an implied condition, and that it should be exercised in subjection to certain great laws and principles, which were fundamental and constitutional in their character, pre-eminent among which, in England and America, was the right of trial by jury. The argument was fortified by reference to a provision of the charter expressly assuring to all the King's subjects in the colony the enjoyment of "all the liberties and immunities of free and natural subjects," and to the statute books of the colony which had, from the first, contained re-enactments of the clauses of Magna Charta, declaratory of the right of trial by jury.

The pamphlet leaves it uncertain whether Judge Howell maintained that the act was really void for the second of the reasons alleged in the plea. The argument made by Varnum before the court in support of that reason was that when the judicial power is vested in several tribunals, it is necessary that one of them shall have the supremacy, so that it may settle the law for the others, correct their errors and prevent them from exceeding their authority, thus keeping the execution of the law uniform throughout the state; that when, in 1729, the judiciary was reconstituted, the superior court was invested with such a supremacy, and had continued to have and exercise it for nearly sixty years, until its continuance had become a matter of common right; but that the act of August, by giving jurisdiction without appeal to the several common pleas courts, concurrently with the superior court, had in effect taken away from the latter court its supremacy in proceedings under the act, thus exposing the citizens of the different counties to serious differences of decision and procedure, and consequently that the act was void. The charter, however, gave the assembly power to establish "such courts of jurisdiction for the hearing of all actions . . . as they shall see fit, and also to distinguish and set forth the several . . . duties, powers and limits of each court;" and, in view of this unlimiting language, it is not easy to see how in this respect the act, however censurable for its departure from correct system, can be regarded as void. At any rate, the third reason alleged in the plea was a much stronger reason, and was probably that which was decisive with the judges, however much they may have criticised the act on the other ground.

In conclusion, Judge Howell maintained that the judges could not, from the nature of their offices, be accountable to the assembly for their judgment, since it was their duty, in deciding cases, to render judgment, after trial and due deliberation, according to their convictions, the act of judging being an assent of the mind to what is adjudged; so that if a judgment were rendered by the judges which was not according to their convictions, it would not be their judgment, and they would betray their trust and perjure themselves by entering it as such.

Judge Howell was the ablest of the judges; and the two others, when their turns came to speak, did not undertake to either enlarge or qualify his statement of reasons. They both declared, in emphatic terms, that, in rendering the judgment, they had acted conscientiously according to their convictions. Judge Hazard also declared that, in a general way, he was in accord with the assembly in regard to a paper currency, and that, if he had any prepossession, it would have been in favor of the act. "But," he added, "it was not possible for me to resist the force of conviction.

The opinion I gave upon the trial was dictated by the energy of truth; I thought it right,—I still think so."

The addresses of the judges were followed by an animated debate on the question. "whether the assembly was satisfied with the reasons given by the judges in support of their judgment," which question the assembly decided in the negative. Thereupon, it was moved that the judges be dismissed from their offices; but, while this motion was under discussion, a memorial was presented from the judges, claiming the right before dismissal, to be heard on specific charges against them, before some proper legal tribunal. General Varnum was heard in support of the memorial. His speech, which was very impressive, inclined the assembly to a more moderate procedure, and, finally, after consulting the attorney-general and other lawyers, it voted that, as the judges were not charged with any criminality, they should be discharged from further attendance.*

The case of *Trevett v. Weeden*, is memorable as the first in which the doctrine was asserted, that legislative enactments which are unconstitutional are void, and will not be enforced by the courts. It is also memorable for the unflinching firmness with which a majority of the judges maintained their right, in the exercise of their judicial functions, to be free from any interference or control on the part of the legislature. These are familiar doctrines now, but they were far from familiar when the justices in that case were before the assembly. In Rhode Island, especially, the assembly was accustomed to regard itself as legislatively supreme. It appointed the judges annually, and could not understand how judges, so appointed, could have authority to disaffirm its enactments. And yet in the end the assembly found itself obliged to acknowledge that the judges were not accountable to it for their judicial acts, honestly performed. The result was salutary. It gave the court a higher sense of its own dignity and independence, and elevated it in popular esteem. The act of August, under which the information was preferred, as also the act of the previous June, to which it was an amendment, were both repealed at a session of the assembly held in December. The assembly, however, could not wholly forget or forgive its own discomfiture, and, at the next election of the judges, re-elected only Paul Mumford, the chief justice, who, when he delivered the judgment of the court, withheld his individual opinion.

The accounts of the Rhode Island judiciary which have come down from the early times are not commendatory. The most damaging of them is that given by the Earl of Bellomont in a report made by him to the king and the Board of Trade and Plantations in 1697. The colony was then in much disfavor with the board on account of its supposed leniency to pirates, and its hostility to the acts of trade. The earl was commissioned "to inquire into the disorders and irregularities countenanced and practised by the governor and company of the colony . . . and make report thereof." The commission was issued at the instance of the board, and was, in its effect, an invitation to everybody who had or supposed he had any reason for disaffection with the authorities to come forward and testify against them. The report could hardly fail to be unfavorable, and should not be taken without proper allowance. The account is as follows: "The courts of justice are held by the Governor and assistants, who sit as judges therein, more for the constituting of the court than for searching out the right of the causes coming before them, or delivering their opinions on points of law (whereof it is said they know very little). They give no directions to the jury, nor sum up the evidences to them, pointing unto the issue

* 10 Rhode Island Colonial Records, p. 220.

which they are to try. Their proceedings are very unmethodical, no ways agreeable to the course and practice of the courts in England, and many times very arbitrary, and contrary to the law of the place, as is affirmed by the attorneys-at-law that have sometimes practised in their courts."* As an offset to this account, the language used by Governor Cranston, nine years later, in a report then made by him on the state of the colony should be read. Referring to the same court, the governor describes it as a court "where the laws of England are approved of and pleaded to all intents and purposes, without it be in some particular acts for the prudential affairs of the Colony, and not repugnant to the laws of England."†

In 1767 a letter was written by George Rome from Narragansett to a friend in Boston, charging the government and the courts—the Superior Court in particular—with gross partiality and corruption. Rome was an Englishman, and a zealous Royalist. He thought the colony's charter—its "pernicious charter" he called it—should never have been granted, and that it ought to be revoked, and the government converted into what he termed "a regal government." He could see nothing that was good in the existing democracy, and he saw the bad with magnifying eyes. He was an agent for the collection of claims due from Rhode Islanders to English creditors, and, in his letter, professed to have been baffled by the courts in his efforts to collect them, being sometimes defeated on notes of hand, and, even after the reversal of adverse verdicts, finding recovery difficult, if not impracticable. The letter found its way to London, and, in 1773, was sent back to Boston by Dr. Franklin, along with the so-called Hutchinson letters. It thus acquired an adventitious notoriety and importance. At the August session of the General Assembly, 1774, the speaker of the house read a copy which he had received, and was requested to write for the original. The people of several of the towns instructed their representatives to make inquiry into the charges, and, if found true, to remove the guilty from office, and, if not, to hold Rome to answer for his calumnies. At the October session Rome was brought to the bar of the house, and (the original letter not having been obtained) was asked if the copy shown to him, was the copy of a letter written by him. He refused to answer, saying that he could not be legally called to the bar of the house to accuse himself, but that, when a letter in his handwriting was presented, he would readily acknowledge it. The house, deeming the answer evasive, committed him for contempt to jail, where he remained until the rising of the house, when, being released, he took refuge in a British man-of-war lying in the bay. His estates were afterwards confiscated and sold, as those of an enemy.‡

These accounts, if the reader will make allowances for the influences under which they were written, and for the political and personal animosities of the writers, need little comment. The judges of the courts, even of the Superior Court, were seldom learned in the law, and, holding their offices by annual election, had scant inducement, and too frequently no opportunity, to increase their knowledge. They had not been taught by their course of life to exercise the circumspection and self-restraint of trained judges, and sometimes doubtless gave way too readily to their natural impulses, so that it may be that Rome, a British Tory pressing the claims of British creditors, occasionally had some ground for complaint. If so, the judges were in fault, and deserving of censure; but it does not follow that they were either corrupt or intentionally unjust.

After this the courts seem to have performed their duties fairly well, and so to

* 3 Rhode Island Colonial Records, pp. 386-7. † 4 Rhode Island Colonial Records, p. 57.

‡ See Urdike's History of the Narragansett Church, pp. 332-42.

have escaped any public criticism. Their defects were doubtless recognized, particularly by the bar, but recognized as incidental to the system. From time to time, meanwhile, there were among the judges some of high ability and historic note. In 1770, Stephen Hopkins, who had before held the office of associate and chief justice of the Superior Court, and who was afterwards one of the signers of the Declaration of Independence, was again elected chief justice, and continued to be annually re-elected as such until 1776, being likewise, during the two or three later years, a delegate to the Continental Congress. William Ellery, also one of the signers, was in 1780 an associate, and in 1785 the chief justice of the court. Peleg Arnold, after a three years' service as delegate to the Continental Congress, was elected chief justice in 1795, and continued to hold the office, except for a year, until 1812. James Burrill, Jr., one of the leaders of the bar, and later United States senator, was chief justice in 1816, and was succeeded by Tristram Burges, a brilliant lawyer and orator, in 1817,—each holding the office for a year. The fact that two such lawyers were willing to accept the office shows that it was held in high honor, for the compensation could not have tempted them.

It appears by Lord Bellomont's report, in 1699, that the duty of charging the jury, imposed on the judges of the higher court by the code of 1647, had then fallen into disuse,—when or why is not known. It is probable that the judges began by not charging in the simpler cases where no charge was necessary, and that gradually the omission became habitual, without any objection from either the bar or the public. The clause prescribing the duty does not appear in the digest of 1719, and was not again enacted in any form until 1827. Down to that time it was common in jury cases for counsel to argue both law and fact, and to read their law-books to the jury, and for the court to allow the jury to retire without instructions. There is reason to think that many lawyers, in cases where the law was not in controversy, rather liked than disliked the practice, since under it their arguments were left to go to the jury uninfluenced by the bench. And, even where there were questions of law, the practice was less reprehensible than it would have been with a more learned court. Of course, where there were questions of law, the jury were doubly liable to error or disagreement, if they insisted on deciding the case in full. But, if they preferred not to do so, they could avoid the liability, in case they were agreed on the facts, by returning a special verdict, finding the facts and leaving the law to be determined by the court; or an alternative verdict,—for the plaintiff, if the court should determine the law in his favor,—if not, for the defendant. The records show that such verdicts were not uncommon. Doubtless, too, the judges often found opportunity to express their opinions for the guidance of the jury without formally charging them. The rulings which they were obliged to make on questions of evidence, more numerous formerly than now, would frequently give them such opportunity. And, finally, though the judges were no longer in the habit of charging the jury, there was nothing to prevent their doing so whenever a clear sense of duty required it of them. It is hardly to be believed that either James Burrill or Tristram Burges, sitting as chief justices, could have seen a difficult question of law submitted to the jury, and the jury all adrift amid conflicting arguments, and yet have withheld their instructions. And, to avoid misapprehension, it may be proper to add, that in suits brought specially to determine the law, the questions could have been, and perhaps generally were, presented to the court on the pleadings, and decided without a jury.

As has been before observed, we cannot rightly judge the past, unless we keep in mind its unlikeness to the present. In the earlier times the population was small and it slowly increased. In 1700, it did not exceed seven thousand; at the close of

the Revolution it was fifty-two thousand, three hundred and forty-seven, and in 1830, less than one hundred thousand. The city of Providence, in 1830, had less than seventeen thousand. The principal industries were agriculture, commerce, and, in the later years, some manufacturing. The people in general were poorly educated; their modes of life and business simple; their controversies mainly about matters of fact. They were much attached to trial by jury; and, therefore, in their circumstances, under the influence of old usages, were not unnaturally content to trust the jury with both law and fact. But as business increases in magnitude and complexity, men more and more like to have the guidance of the law, and to feel sure that if they follow it, they will receive its protection. Hence the necessity for judges capable of instructing the jury in the law and of deciding legal questions in accordance with legal principles. To this end they should be chosen from the bar, should receive an adequate compensation, and hold their offices by a lasting tenure. These conditions have at length been fulfilled. In 1827, as before stated, the judges of the higher court were reduced from five to three and required by statute to instruct the jury in the law—a requirement subsequently perpetuated in the Constitution. Also, in 1827, Samuel Eddy, a lawyer of high character, was elected chief justice. His associates, though not lawyers, were not wholly unlearned in the law, having previously served as judges acceptably to the public. Since 1835, the judges of the higher court have all been lawyers. For many years before the adoption of the Constitution, while continuing to be officers of annual election, they were customarily re-elected from year to year, except in case of death or retirement; and under the Constitution they hold their offices continuously, as previously stated.*

In the earlier times the judges of the higher court received no salaries, but were compensated for their services by a share of the fees paid by suitors, and by a small per diem for actual attendance. Between 1783 and 1822, they severally received, sometimes a per diem, but more generally a salary. In 1822, their salaries were \$250 for the chief and \$200 each for the associates; which, in 1827, when the number of the judges was reduced, were raised to \$650 for the chief and \$550 each for the associates, besides fees. Manifestly the compensation was insufficient to insure for the bench with certainty a high order of talent. It was, however, not quite so inadequate as it seems, since the business of the court was then much less than now, and pay for service of every sort—of public service in particular—was more moderate. Since the adoption of the Constitution, the compensation of the judges, which cannot be reduced during their continuance in office, has been gradually increased, until it is \$5,500 a year for the chief and \$5,000 for each of the associates. And now any judge who has served continuously for twenty-five years, or if seventy years old, for ten years, is at liberty to retire with his full salary for the rest of his life.

A court of last resort has not completely discharged its function when it has decided the case before it, if the case involves controverted questions of law. It has likewise, under a proper practice, to enunciate the rule which it has applied and its reasons for the application; so that its opinion may remain, a precedent and a lesson, for guidance in the future; for, while courts do not make the law, they develop and elucidate it by their decisions. The practice has a double utility. It exhibits the law in its actual workings, and so make its operation and requirements more easily understood by all who have need to understand them. It is also a safeguard for the judges; since their reasons, when expressed in written words, more readily reveal their unsoundness, if any they have, than when they remain loosely in the mind;

* Rider's Historical Tracts, No. 18, pp. 83-6.

and the process of writing out an opinion sometimes leads to a substantial modification of it.

Of course, it was not to be expected that judges, who were not lawyers, would prepare written opinions. The Rhode Island Reports, however, contain one delivered by Chief Justice Eddy as early as 1828, and several delivered after the bench had been chosen wholly from the bar, but prior to the appointment of any reporter, some of which appear to have been prepared with great care and study. In the Digest of 1844 there was provision for the appointment of a reporter, to make report of the decisions of the Supreme Court on all legal questions argued by counsel, and to publish them annually. In January, 1845, the Supreme Court was authorized to make the appointment, and directed to do so at its next March term. Joseph K. Angell was appointed and held the office until September, 1849. The Rhode Island Reports contain but few opinions delivered while he was in office. In 1848, Richard W. Greene, who had attained high eminence at the bar, was elected chief justice and remained such until 1854. During this time the delivery of written opinions increased in frequency. For the first four years the court regularly sat in full bench for nearly all purposes, and the reporter, in accordance with the wishes of the chief justice, reported several of his charges to the jury in cases involving legal questions; also rulings by the court on points of practice, and decisions orally made. From 1856 to 1865 the offices of chief justice and reporter were both held by Samuel Ames. Mr. Ames was not only a great legal practitioner, but also a jurist who loved the law and studied it as a science. He doubtless accepted the two offices largely for the sake of the opportunity which they gave him to make for himself a more lasting name in jurisprudence than he could hope to make at the bar. He was accordingly very careful either to write himself, or to have his associates write, opinions on all legal questions argued to the full court, and to report the same, with subsidiary statements of fact and argument when needful. The example then set by the judges has since then been closely followed by their successors. The result is a body of decisions, which is not only valuable in itself, but which also, in the course of its production, has had an influence on the intellectual habits of both the bench and the bar, that has been highly educative and salutary.

A resumé of some of the cases reported might interest the reader, but cannot be furnished, because this chapter is already overflowing its proper limits. Accounts, however, have been given of the action of the higher court in two cases (*Trevett v. Weeden*, and *Taylor v. Place*), in which the General Assembly was held to have exceeded its powers, and it seems only fitting to follow them with an account of its action in a matter in which the people, or a large percentage of the people, were held to have acted ineffectually, because without legal authority.

In 1841-2 the charter of 1663 was still the primary law of the state. Under it the right of suffrage, as allowed by statute in pursuance of its provisions, was so limited that a citizen, to be entitled to vote, must be either a freeholder, possessed, as such, of real estate of the value of \$134, or which should rent for \$7 per annum, or the eldest son of such a freeholder. The limitation excluded from the franchise a large proportion of the citizens, and was the cause of much discontent. The inequalities of representation in the General Assembly was another cause of dissatisfaction; Newport having six representatives, Providence, Portsmouth and Warwick four each, and the other towns two each. This apportionment was prescribed in the charter, and, although not originally unfair, had become so by reason of the different rates of increase of population in the different towns. For instance, in 1840 Smithfield, with only two representatives, was more populous than Newport with six, and

Providence with only four had a population nearly as numerous as that of the ten towns of Newport and Bristol counties. Several efforts had been made, with the sanction of the General Assembly, to secure a new constitution, but without success. At the January session, in 1841, the effort was renewed, and, in response to it, an act was passed, making provision for a constitutional convention to be held in the following November. The convention met and framed a constitution, which very much equalized the representation, and extended the right of suffrage (broadly speaking) to every white male native citizen of the age of twenty-one years, who had resided in the state two years, and to every white male naturalized citizen of the age of twenty-one years, who had resided in the state three years, and was the owner of a freehold real estate of the value of \$134 over all incumbrances. Under an act of the General Assembly, passed at its January session, 1842, this constitution, popularly known as the "Landholders' Constitution," was submitted, on March 21, 22 and 23, to all persons who would have the right to vote under it, if it were then in force, and was rejected by a vote of eight thousand and thirteen for, and eight thousand six hundred and eighty-nine against it, the suffragists largely joining in the vote against it. They voted against it because, after the passage of the act for the convention, they had undertaken to proceed for themselves, claiming that the people were absolutely sovereign, and could change their form of government whenever a majority of the adult male citizens elected to do so, either with or without law. They had accordingly instituted a convention of their own, which framed a constitution and submitted it to the popular vote upon terms of submission prescribed by it. In accordance with said terms the polls were opened December 27, 1841, for the votes of all American citizens permanently resident in the state, and of the age of twenty-one years, and were kept open six days, the first three for votes in person, and the last three for the proxies of such as, for sickness or other causes, were unable to attend in person. Fourteen thousand votes were claimed to have been received; thirteen thousand nine hundred and forty-four for, and fifty-six against the constitution, and the constitution was declared to have had the approval of a majority of all the adult male citizens of the state, and to be the supreme law of the state. Having thus secured the adoption of the "People's Constitution," as they claimed, and defeated the "Landholders' Constitution," their next step was to hold elections and organize under the former constitution. This was done, and was followed by military attempts, under the command of Thomas Wilson Dorr, as governor, to take possession of the state property and supplant the charter government. These attempts were soon suppressed, and the "People's government" collapsed and disappeared. In the course of the year a constitution, equalizing representation and extending the right of suffrage, was framed and adopted, under legislative sanction, and, going into effect, still remains, with some amendments, the fundamental law of the state.

Amid these exciting events, the judges of the supreme court, though averse to any active participation in politics, could not remain merely silent spectators. Shortly after the adoption of the "People's Constitution," in reply to a letter from prominent citizens, they declared that, in their opinion, the "People's Constitution," having been adopted without law, was void, and that any attempt to carry it into effect by force of arms would be treason against the state, if not against the United States. Later, in a charge to the grand jury delivered at Newport, March 15, 1842, Chief Justice Durfee elaborately expounded the views entertained by him and his associates, to the end that no man should become implicated in offence against the state, without knowing the opinion of the court.

The charge did not assent to the claims of the suffragists, that the people at

large, as such, were sovereign, and that therefore a majority of the adult male citizens, residing in the state, could change its constitution, or form of government, whenever they elected to do so, without law, or leave granted by the existing government. On the contrary it maintained that the votes, being cast without law, could have no legal validity or effect; since, to have such validity or effect, they must be so cast according to law, that, when counted, they should be taken to express not only the will of the majority that cast them, but also the will of the entire governing body, or, in other words, of the state. For a state, according to the charge, is not the area represented as such on a map, that being not the state, but the territory under its jurisdiction; nor the inhabitants of that territory merely, for the inhabitants, merely as such, have no organization enabling them to act as a unit or whole. "No treaty can be made with them; no law can be enacted by them." Nor, according to the charge, are the rulers, who have the legislative and executive powers, in themselves the State; though they come nearer to our idea of it, and when looking to foreign governments, we need look no further; but here, under the constitution of the United States, we must find not only a government, but also "a people, so bound together and organized by law, as to appoint rulers, and to reduce the innumerable wills of the multitude to a legal unit. I think I give you a true description of a State," the charge proceeded, "when I say that a State is a legally organized people, subsisting as such from generation to generation, giving through the forms of law the wills of the many to become one sovereign will. It is a body politic, qualified to subsist by perpetual succession and accession. It is a self-subsistent corporation. . . . There is and from the nature of things there can be no sovereign people without law;—without that unity which the law gives them, whereby they are enabled to act as one; and consequently there can be no sovereign will that is not expressed through the forms of their corporate existence."

In verification of this description, the charge went on to show that the first charter, that of 1643, incorporated Providence, Portsmouth and Newport, under the name of the "Incorporation of Providence Plantations in the Narragansett Bay in New England," Warwick being afterward added by admission. "It was then," it declared, "that the inhabitants of this state first became a corporate people, but dependent on the mother country. In 1660 this corporate people, by their agents, petitioned their sovereign for a new charter. On this petition the charter in our statute books was granted, and by the same corporate people, in November, 1663, accepted as their charter or form of government. This charter declared certain persons named therein, or such as then were or should thereafter be made free of the company, a body corporate, in fact and name, by the name of the governor and company of Rhode Island and Providence Plantations in New England, in America, and by the same name that they and their successors should have perpetual succession." The corporation, or corporate people, so formed, said the charge, continued to exist as such under the charter, dependent on the mother country until, in consequence of her tyranny, it cut its connection with her, and thus became "a self-subsistent corporation, body-politic or state." This was its own act, performed by its legislative body, its delegation in Congress, and by its corporate people in every legal form in which it could act. And it was the same corporate people, acting according to prescribed forms, which afterwards adopted the Federal Constitution, and thereby became one of the states of the Union.

Some of the suffragists had maintained that when the colony broke away from the mother country the sovereignty passed to the people at large, and not solely to the corporate people. The court replied that this could not be, since the act of sepa-

ration was the act of the corporate people, and whatever of sovereignty passed, could only have passed to it, since the sovereign will, being a unit, must go to a body so organized that it could exercise it as a unit. "The natural people," in the language of the charge, "has not the capacity to inherit or succeed to sovereignty, though they may create it by compact, all being parties, or by force, when there is no superior power to impose restraint." But if, after the separation, the governing power continued in the corporate people under the charter, and, being freed from dependence on the mother country, became fully sovereign, as was then and has been since then, recognized in fact both in this and by the other states, it follows, since the sovereign will or power can be sovereign only as it is a unit, reaching every person and every parcel of territory within its own sphere of action, that any other power claiming to be sovereign therein must be a usurping power, and that its adherents, if they undertake to establish it by force of arms, will be guilty of treason against the government which they endeavor to supplant. The court, however, fully admitted the power of the corporate people, at its own will, proceeding according to the prescribed course of law, to change its fundamental law and form of government whenever it chose, provided it did so without conflict with the Constitution of the United States.

The law, as thus declared, was subsequently followed and applied by the Supreme Court, in the trials growing out of the attempts to carry the People's Constitution into effect by military force, and notably in the trial of the indictment of Thomas W. Dorr, for treason against the state. In that trial the defendant, who did not deny the commission of the overt acts, which the prosecution had adduced evidence to prove, attempted to justify them by showing that he had lawfully committed them as governor under the People's Constitution, and, to that end, offered to prove that it had been adopted by a majority of all the adult male citizens residing in the state, by producing the votes that were cast. But the court refused to admit the evidence, holding that the votes, having been cast without law, were without legal effect, and incompetent to prove what they were offered to prove. It also ruled that courts, without proof from the bar, take notice of what the Constitution is or was, and who is or was governor, in their own states; that the legislatures count votes, and declare whether or not a Constitution has been adopted, or a governor elected; and that the courts cannot revise or reverse their acts, in that particular, without usurping their power—the questions being political, not judicial. In this latter view the Supreme Court of the United States, in a case soon afterwards before it from Rhode Island,* agreed with the state court, and, apparently, following the trend of its observations, would have agreed in regard to the votes for the People's Constitution, if it had found it necessary to pass on their validity.

A court is dependent for its character on the judges who hold it. It is they who give it its efficiency, and make its reputation for it. Hence, a history of the judiciary of a state should also be, to some extent, a history of the justices who constitute it, or at least of such of them as, being justices of the higher court, are most in mind when the judiciary is mentioned. From 1663 to 1747 the higher court was held by persons elected primarily, not as judges, but as governors, deputy-governors and assistants. No account of them, further than has already been given, can be expected. In 1747 the court was reorganized, and, until 1827, held by a chief and four associate justices, chosen annually by the General Assembly. During that time twenty-five chief justices, and about eighty associates were elected. They have been characterized hereinbefore in general terms. They cannot be individually por-

* *Luther vs. Borden*, 7 Howard, U. S. Sup. Ct. Rep. 1.

trayed. They were sometimes, but not generally, lawyers. Some of them were men of great ability and high character. These doubtless elevated the conduct of the bench, not simply for the time, but, by the example they set, and the traditions they left behind them, more permanently, and doubtless helped accelerate the change which was made in 1827. In that year the judges were reduced, from a chief with four associates, to a chief with only two associates, and it was made obligatory on the court to instruct the jury in the law. The year gives a new starting-point—since it became necessary that thereafter the judges should be lawyers. Some brief—they must be very brief—sketches of some of the chief justices may help the reader to a truer idea of the court, and will fitly conclude this chapter.

The first was Samuel Eddy. He was born in Johnson, R. I., March 31, 1769; graduated from Brown University in 1787; studied law in Providence with Hon. Benjamin Bourne and was a while his partner, and in 1790 and the three years following was elected clerk of the Supreme Judicial Court for Providence county. In 1797 he was elected by the General Assembly to fill a vacancy in the office of secretary of state, and was re-elected by the people every year without opposition till May, 1819. When he retired the General Assembly unanimously voted him their thanks "for his distinguished talents and ability in the discharge of the duties of the office for more than twenty years." From 1819 to 1825, he filled the office of representative in Congress from Rhode Island. He was elected chief justice in May, 1827, and was annually re-elected till June, 1835, when sickness compelled his retirement. He died February 3, 1839.

When he took his seat he had already become well and widely known and trusted as a strong man of incorruptible integrity. He brought to the bench an intellect which had been matured by rigorous studies not only in the law, but also in the history of the state, in metaphysical philosophy, especially that of Locke and his school, in theology, and in some of the physical sciences. His delight was in truths which were definite and certain, and which could be authenticated by positive evidence. It was a turn of mind which fitted him well for judicial work. It led him, it has been said, to look for the spirit of the law in the letter of the law, where generally it is most surely found; to expect exactness in the language of statutes, judicial decisions and legal instruments, and to require it in legal proceedings and in the performance of official duty by every functionary of the court, from the highest to the lowest. The same authority further tells us that his decisions were generally the result of a thorough investigation of every fact and every principle of law bearing on the case, and that, when reached, they were delivered scrupulously as reached, his warmest friend faring no better than his worst enemy, if enemy he had.* He seems, indeed, to have been a man, if not of extraordinary compass, yet of great strength and honesty of mind, who did his own work well, and, at the same time, exerted a salutary influence on all who were associated with him.

He was succeeded by Job Durfee, a son of Thomas Durfee, of Tiverton, R. I., who in the later years of his life, 1820-1829, was chief justice of the Court of Common Pleas for Newport County. Job Durfee was born in Tiverton September 20, 1790; graduated from Brown University in 1813; studied law with his father and was admitted to the bar in 1817. From 1816 to 1820, he was a representative from Tiverton in the General Assembly, and, for two sessions, from 1821 to 1825, a representative from the state in Congress. From October until May, 1829, he was again in the General Assembly and was speaker of the House from May, 1827, to May, 1829. In May, 1829, he declined a re-election. He distinguished himself in the

* See "The Complete Works of Hon. Job Durfee," pp. 519-523.

General Assembly and in Congress by speeches which were both powerful and instructive. In 1833 he was again returned to the General Assembly, and at the May session was chosen an assistant justice of the Supreme Judicial Court. When Chief Justice Eddy retired in June, 1835, he was chosen his successor.

Chief Justice Durfee was probably not a judge who would now be regarded as extensively and thoroughly versed in all the ramifications of the law as a system, or as variously read in the reported cases which show the law as actually developed and applied; but he was well-grounded in its general principles, having a mind by which they were readily grasped and retained; and, in the trials before him, he liked to reason out his decisions from such principles rather than rest them on the authority of cases elsewhere decided. He loved to expatiate and take large views. This is seen in his charges to the grand jury, several of which have been published in his collected works. These were not merely dry expositions of positive law, but often thoughtfully pondered dissertations on the philosophy and ethics of jurisprudence. His capacity to deal with great constitutional questions appears in the account of his treatment of such a question previously given. He had a mind of great strength and scope, variously developed, as is shown in his collected works, and a character to match his mind. He died July 26, 1847.

Richard Ward Greene, the next chief justice, was born at Potowomut in Warwick, R. I., January 21, 1792; graduated from Brown University in 1812; and after law studies at the Litchfield Law School and in Boston, commenced practice in Providence, R. I., in 1816. He was United States district attorney for the Rhode Island District from 1826 to 1845. The office helped him to a valuable practice in the District and Circuit Courts. He gave himself unreservedly to his profession, and became widely learned both in law and equity. He liked the security of precedents and decisions, and was much resorted to as a safe adviser. Though not an eloquent pleader, he was nevertheless constantly sought for in important cases, for his thoroughness of preparation, and his exceptional power of analysis and perspicuous presentation. He was, when chosen chief justice, regarded as one of the best lawyers in the state. He filled the office from May, 1848, to June, 1854. As a judge he excelled in jury trials, being prompt and accurate in his rulings and exceedingly direct and clear in his charges, using mostly plain and common words, easily understood by the jury. In trials to the court he was patient and attentive in hearing, and, in deciding, gave opinions which were clear, orderly, closely confined to the points at issue, terse in expression, and rather inelaborate, like the oral opinions of the earlier English judges. But he never seemed to take heartily to the bench. He liked the harness of his profession better than that of the court, and was glad to resume it. He died in Providence, March 14, 1875, in the 84th year of his age.

William Read Staples was his successor. He was born in Providence, October 10, 1798; graduated from Brown University in 1817, studied law with Nathaniel Searle in Providence, and was admitted to practice in September, 1819. He served two years as justice of the police-court in Providence, and in June, 1835, was elected associate justice of the Supreme Judicial, afterwards the Supreme Court, and continued to serve as such until November, 1854, when he became the chief justice. He resigned from the bench in March, 1856.

He was from youth an antiquarian, devoted to research in Rhode Island history, and was the author of several historical publications, the more noted of which are "Annals of Providence," published in 1843, and "Rhode Island in the Continental Congress," printed by order of the General Assembly in 1870, after his death. As a judge he liked best to try jury cases, and, agreeably to his preference, was assigned to hold the Court of Common Pleas. He was prompt, diligent, methodical in the

discharge of his judicial duties, and looked for the exercise of similar virtues from the attendants on the court and the lawyers who practiced before him. He deeply felt the obligations resting on him as a judge; and, with his keen sense of justice and strong love of the truth, kept his mind when trying a case, intently alive to its development, and often seemed to get at the true merits of the controversy with a sort of intuitive celerity. Few judges could dispose of business so rapidly and, at the same time with such satisfactory results. Owing to his being assigned so much to the Court of Common Pleas, the "Rhode Island Reports" contain comparatively few opinions from his pen; but seldom has any judge more completely enjoyed the esteem and confidence of the public. He died October 19, 1868.

The next chief justice was Samuel Ames. He was born in Providence, September 6, 1806, graduated from Brown University in 1823, studied law in Providence and at the Litchfield Law School, and was admitted to the bar in 1826. Early in his career he joined with Joseph K. Angell in preparing a work on the law of corporations, which, when published, met with much favor and success. He represented his native city for several years in the General Assembly, and in 1855 was chairman of the commission that revised the statutes of the state. He was successful in his profession, being of counsel in most of the more important cases, and when chosen chief justice was generally regarded, in respect of his capacity and learning in the law, as at the head of the bar. He was elected chief justice in May, 1856, and continued such till November 15, 1865, when he resigned because of failing health, and died December 20, 1865. He loved the law, he loved to try cases as a lawyer, he loved to read new law-books and decisions, and to converse about them, and he entered upon the duties of the bench with ardor and a strong wish to do well the work which he would have to do. He did not slacken in his efforts while on the bench. To use language once before used by the present writer, "His capacious mind was not only stored, but impregnated and fertilized with the principles and precepts of the law as with so many living and procreant germs. His juridical fullness and fertility were apparent, not only in his forensic efforts, but even in his common conversation, which, moreover, was as vivacious as instructive. As chief justice he has left in the "Rhode Island Reports" many permanent proofs of his powers, but nothing which duly represents the brimming exuberance and facility of his intellect. No Rhode Island lawyer ever exhibited so full and so supple a mastery of the complex and enormous system of English jurisprudence."*

Charles Smith Bradley, who succeeded Samuel Ames, was born in Newburyport, Mass., July 19, 1819. He graduated from Brown University at the head of his class in 1838; pursued his legal studies at the Harvard Law School and in Providence, and was admitted to the bar in 1841. He entered into partnership with Charles F. Tillinghast, with whom he had studied in Providence, and rapidly made himself known, not only for his efficiency as a lawyer, but also for his surpassing power of lucid and eloquent speech. In 1854 he was state senator from North Providence; but he was a Democrat, and his party at that time was seldom predominant. His election as chief justice was a striking proof of the very high estimation in which he was held; for, politically, the General Assembly was decidedly Republican. He was elected February 7, 1866, and resigned March 4, 1868, holding the office about two years after he took his seat. Two years give a judge but scant time within which to show his judicial capacity; for they may pass without bringing cases which put it to the test. Judge Bradley, however, presided with a dignity and a distinction that pleasantly secured to the court an atmosphere favorable to judicial inquiry and

* Oration delivered at the Dedication of the Providence County Court House.

deliberation. His charges to the jury were full and fair and models in lucidity. He was quick to discern the critical points of a case and met them squarely in his rulings and opinions. If he had chosen to remain on the bench he would doubtless have made for himself a distinguished name as a judge; and, as it was, his retirement was much regretted by the bar and the public. He died April 29, 1888.

The next chief justice was George Arnold Brayton. He was born in the village of Apponaug, in Warwick, R. I. He graduated from Brown University in 1824. He pursued his legal studies with Albert C. Greene and at the Litchfield Law School, was admitted to the bar in 1827, and commenced practice at Apponaug. In 1834 he became the town clerk of Warwick. He was a member of the convention that framed the "Landholder's Constitution," and also of that which framed the present Constitution of the state. He was a representative in the General Assembly in 1832, and again in 1843, and in 1843 was elected associate justice of the Supreme Court. He remained such until March 13, 1868, when he was elected chief justice. He was chief justice until May 28, 1874, when he resigned. He was on the bench as associate and chief justice about thirty-one years. He died April 21, 1880.

The experience of thirty years on the bench is of much avail with a judge who is content with his office and conscientiously devoted to its duties. He learns, in that time, a great deal which is of value that cannot be learned from the law books. It was by such an experience, and by the law studies incident to it, that Judge Brayton attained to his excellent judicial standing. He was not a rapid thinker and was often criticised for his slowness, as if it were the result of a dilatory disposition. This was hardly just. There may be men whose first thought is their surest, but for others it is the repeated thought, frequently correcting or reaffirming itself, that finally brings the sufficing sense of security. Judge Brayton was slow to decide, because he did not willingly decide so long as he had any fear of deciding wrong. For this reason he liked the court of last resort better than that for jury trials; yet, obedient to his sense of duty, he often tried jury cases, and his patience, his impartiality, and his unostentatious desire to be right, made him a favorite with many lawyers for such trials. Even his own averseness to them seemed to lessen with practice. His reputation, however, rests on his opinions, which are numerous, extending through the first ten volumes of the Rhode Island Reports, and "some of which," if the writer may again quote himself, "are truly admirable in research and ratiocination. In preparing them he liked always to delve down through the upper *stratum* of *dicta* and decisions to the hard pan of principle and build on that. He delighted, especially in the earlier precedents, because in them he could find the law trickling in crystal freshness out of its elementary sources. He had the tastes of an antiquary, but it was his love of justice rather than his love of antiquity that lured him back to the fountain heads of jurisprudence. Without doubt he may have delivered erroneous judgments, but we question if there are many judges whose decisions will better abide the persistent winnowing of time."

Thomas Durfee succeeded Chief Justice Brayton. He was elected, after a service of more than nine years as an associate, January 28, 1875, and held the office from February 6, 1875, to March 14, 1891, which was longer than any chief justice before him had served as such. He was succeeded by Charles Matteson, who had served as his associate for sixteen years, and is the present chief justice. These two are still living, and may properly wait for characterization from another hand. It would give the writer pleasure to say somewhat in regard to the associate justices of the period covered by these sketches; for the chief justices, being more in evidence than their associates, often get the credit which belongs to them all in common. But this chapter, already too long, must come to an end.

CHAPTER CLXIV.

HISTORY OF EDUCATION IN RHODE ISLAND.

BY THOMAS B. STOCKWELL.



THE history of education in Rhode Island is unique. Here as in religious matters the state wrought upon lines peculiar to herself. There is no doubt but that Roger Williams and his associates held sound learning and a liberal culture in as high esteem as their neighbors upon either side. But education and religion were so intimately associated, both in the neighboring colonies and in the mother country, that when the early settlers of this commonwealth determined to cut irremediably the connection between church and state it was practically impossible to avoid casting off also the idea of education at the hands of the government. As religion was recognized to be the peculiar right of the individual, with which no one else whomsoever should have any part or lot, so education came to be held as the special duty and responsibility of each parent, for the discharge of which he was solely accountable to his God,—not to the state.

Then too the retention by each of the settlements or towns, under the first charter, of so many of their original rights undoubtedly tended to thwart any efforts to establish a common system or method for the state as a whole. The late Hon. Eli-sha R. Potter, associate justice of the Supreme Court, and the second to hold the office of commissioner of public schools, assigns the following reasons for the failure of Rhode Island to early establish and maintain a system of public schools: first, that Rhode Island was settled by men of all religious views and opinions, and men who had none at all,—hence the population was not homogeneous; second, that the colony for a hundred years, up to 1728, lacked settled boundaries and government, but was involved, more or less of the time, in contentions with her neighbors; third, that the population was so small and sparse as to preclude for a large part of the state the idea of regular schools; lastly, that the prevalence of slavery in the southern section—the Narragansett country—tending to the concentration of property and land in the hands of the few, rendered any common system of schools an impossibility.

Evidences of a disposition to make some provision for the education of youth are to be found almost from the first. This is especially true of the settlers of the island of Rhode Island. On the 20th of August, 1640, a little more than a year after the settlement of Newport, the colony voted to call the Rev. Robert Lenthal “to keep a public school,” and at the same time made him and his heirs a grant of one hundred acres of land, with the use of an additional hundred so long as he continued to teach the school. The early records of the colony are very barren of allusions to this school, but in 1763 we find that a vote was passed directing that the “school lands should be sold, and that the moneys arising by the sale of said lots and the

annual rents forever shall be a fund for the schooling and education of poor children." From this and other references of a similar character it is evident that the schools were not common schools in the true sense,—for the use of all classes.

About 1652 we note the erection of a school-house by the Warwick settlement, but its future history we are unable to trace. In 1663 the proprietors of Providence set apart one hundred and six acres of land "to be reserved for the maintenance of a school," but there is no reference to a schoolhouse for nearly a century afterwards. We find a vote of the town of Bristol in 1682, "that each person that hath children in town ready to go to school shall pay 3d. the week for each child's schooling to a schoolmaster, and the town shall make the wages amount to twenty-four pounds the year." In 1695 Samuel Sewall of Boston, for the consideration of a nominal sum and "for the encouragement of literature and good education," conveyed five hundred acres of land in Pettaquamscutt—embracing South Kingstown and parts of North Kingstown and Exeter—for the maintenance of a free school in that territory.

It is evident that such provisions for the education of the children would not satisfy those parents who possessed the means for securing better and more extensive advantages; hence, private schools were established in all of the towns around the bay and in a few of the others. These select schools developed, in Newport especially, to quite a degree of prominence, and were the main instrumentality whereby the children of the first century and a half in the life of the state were trained and fitted for life. A class of semi-public schools sprang up during this time which were called proprietors' schools. The people of a neighborhood would club together, at first without any legal basis of organization, and arrange to provide a schoolroom and a teacher, the expense to be met by a pro rata assessment upon all who participated. As time went on the disposition grew to open these schools to *all*, even though some were not able to pay their share. Furthermore there arose the necessity, in one place after another, for the sanction of law to enable these proprietors to carry out their plans, so that one group after another petitioned to the General Assembly and was organized into a legal corporation for the purpose of maintaining a school.

There could be but one general result of such provisions for public education. The only class in the community who could secure even a moderate education was the children of the wealthy. For them there were opportunities of a fairly good character, but for all the others there was nothing fixed or certain. Hence it was not strange that a large proportion of the people, especially outside of the larger centres of population, should have been but poorly educated. The consciousness of this condition of affairs must have been dawning upon the minds of the more thoughtful for some time, and it finally took shape in the form of a vote passed by the town of Providence, December 2, 1767, "to build three school-houses for small children and one for youth, to provide instruction and pay the expense from the treasury." A subsequent plan for the maintenance of these schools, which provided "that *every* inhabitant of the town . . . shall have and enjoy an equal right and privilege . . . to any and all of these schools," was voted down—to quote one who was always a friend to education, Moses Brown—"by the poorer sort of people, being led away not to see their own as well as the public interest therein." It was not the only time men have deliberately stood in their own light.

For another generation the embers continued to burn, though but slowly, until in 1798 they were fanned into a vigorous flame by the efforts of one man, John Howland. To this gentleman, more than to any other one person, is Rhode Island indebted for the first free public schools established within her borders. He was a

man of limited education, of no wealth, holding no office, but of great native abilities and force of character. The story of his efforts in behalf of "free schools," as told by himself, has all the flavor of a romance, and it seems hardly possible that one man, so handicapped, could have carried such an enterprise through to a successful conclusion.

The inception of the movement was in the Mechanics' Association of Providence, which was formed in 1789. Its name indicates the nature of its membership, and, to quote Mr. Howland's own words, "When we came together we made the discovery of our deficiencies. There were papers to be drawn and various kinds of writing to be done that few of us were competent to execute. Then we began to talk. Ought not our children to have better advantages of education than we have enjoyed?" As a result of these discussions it was determined to go to the General Assembly at once "for the establishment of free schools throughout the state." At the February session of the assembly, 1799, a memorial, written by Mr. Howland, was laid before that body, which disclosed in a telling manner the existing condition of the educational facilities of the state, and closed with a specific request that "legal provisions for the establishment of free schools sufficient to educate all the children in the several towns throughout the state" should be made.

It must not be supposed that during all of his labors Mr. Howland received naught but commendation and praise. On the contrary, seldom has a benefactor of his kind received less appreciation and recognition than did he at the hands of those whom his labors were destined to aid the most—the poorest and most ignorant. Indeed, had the success of the movement depended upon their votes it would have failed. Its main strength was in the class of people represented by the association above referred to, men and women who had become aware of the value of education, but had not been able to reap for themselves many of its advantages. Then there were many among the wealthy and influential citizens who were public-spirited and far-sighted enough to see the benefits to be derived by the state from the proposed measure.

The bill was introduced into the assembly in June, 1799, and was finally referred, according to the custom of those days, to the several towns for instructions. Here we had practically the modern referendum, the people directly voting upon measures proposed for enactment. Mr. Howland made an active canvass of the state and secured favorable votes in many towns, and at the October session the bill was passed by the House, but could not overcome the conservatism of the Senate. But between that time and the February session, 1800, the friends of the bill were not idle, and it was finally carried through the Senate by a unanimous vote. John Howland had won his victory, and we can easily imagine the sense of satisfaction with which he must have reflected upon the campaign and its varied incidents.

The salient features of this, the first law providing for free public schools in Rhode Island, were:

1. Each and every town should maintain one or more free schools for the instruction of all white inhabitants between the ages of six and twenty years, in reading, writing and common arithmetic.
2. Extent or amount of schooling was fixed by statute, the towns being grouped for that purpose.
3. The state paid each town twenty per cent. of the amount received from the town the preceding year by the state treasury as taxes, provided the gross amount so paid by the state did not exceed \$6,000 in any one year.
4. Town councils were authorized to divide the towns into school districts,

which were empowered to build and repair school-houses and to continue schools beyond the time provided for by the state and town money.

5. The teacher must be a native or naturalized citizen of the United States, and must have a certificate of qualifications from the town council.

If the bill met with no opposition to speak of in the legislature, it encountered enough among the people of the state. It was at once denounced as a surrender of the distinctive features of the state's autonomy, as directly contrary to her long-established and universally-accepted policy. In Providence, owing undoubtedly to John Howland's efforts, schools were organized under the new law, but in not another town was any effort made to comply with it. An attempt was made to repeal the act in October, only eight months after its passage, but it failed by a close vote. Repeated efforts for repeal were made for the next two years without success, there being evidently a feeling that it would not do to retrace their steps so suddenly. In February, 1803, just three years after its passage, the foes of the measure were successful, and every trace of the obnoxious scheme was swept from the statute book. It was so clearly in advance of public sentiment that its friends were convinced the cause would suffer more from its existence unenforced than from its repeal.

Providence, however, having put her hand to the plough, did not turn back. Howland and his friends kept at work agitating and striving for improvement, so that a clear and decided sentiment in favor of the new policy developed from year to year. These new views began to work their way out into the country, and at the February session of the Assembly, 1820, there appears a sign of awakened interest in free schools in the form of a resolution calling on the towns for "information on the subject of public schools." In June, 1821, a committee was appointed to inquire into the state of education in the several towns, but no record of its action is to be found. In 1827 the agitation was renewed with more vigor, and it culminated, after a severe contest, in the passage, at the January session, 1828, of the second act providing for free schools. From the files of the Rhode Island *American Gazette* for January 16, 1828, we learn that there were in the whole state at that time, exclusive of Providence and Newport, 181 school-houses and ten academies. These had all been erected by private enterprise, and their advantages were available only by those who could pay the tuition fee.

The new bill had been drawn so as to meet some of the bitterest criticisms made upon the first one; hence it made friends in many quarters and finally passed the Assembly almost as unanimously as its predecessor. By the law of 1800 each town was *compelled* to provide schools; now it was left for the freemen of each town to determine the question in town meeting; the former gave power to any seven voters in a district to call a meeting to vote taxes for school purposes, but in the new act this was entirely omitted. Provision was made for the creation of a school committee to have general care of the schools. For the aid of the schools all money received by the state treasurer on account of lotteries and auctioneers' dues was to be divided out among the towns on the basis of the number of children under sixteen years of age. It is curious to note the evidences of a fear lest the friends of education should be too enthusiastic and so beguile and drive their fellow-citizens into unwarranted expenditures. While the law permitted the freemen to vote a tax for the support of schools, they were limited to twice the amount to be received that year from the state treasury. This restriction was not acceptable to Providence, her ideas having grown beyond these narrow limits, and at the request of her representatives she was empowered to raise any sum the freemen might vote.

Provision was made at this time for the beginning of a permanent school fund,

by the setting apart of five thousand dollars for investment in some safe bank stock, only the income of which should be used. To this sum was to be added yearly all excess of lottery and auctioneers' dues over the ten thousand dollars to be divided annually among the towns. Later, in 1837, the three payments or deposits made by the general government to all the states in the Union, amounting to \$382,335.30, were added to the fund. This amount has at different times, under stress of financial stringency, been subjected to more or less depletion to meet unexpected demands, though always with the promise of future re-payment. The policy adopted at the beginning, of investing in state banks, has been continued, with the experience that while most have proved sound, enough have failed to considerably reduce the total. At the present time this fund amounts to a little less than \$300,000. The additions to it are solely from the tax on auctioneers' sales, and amount annually to from fifteen hundred to two thousand dollars.

Reference has been made to the tax upon lotteries as a source of income for the schools. The first evidence of aid rendered by the lottery to education was in 1760, when one was authorized by the assembly "to re-establish the Providence Library," which had been destroyed by fire. In 1773 the inhabitants of East Greenwich were permitted to raise \$600 in this way to provide a school-house. In 1796 Rhode Island College was empowered to raise \$25,000 by a lottery. On several occasions during this half century the lottery was resorted to by towns and academies as a means of securing needed funds, until the climax was reached in 1826, when a series of lotteries was authorized, called school fund lotteries, because each one was to contribute \$10,000 to the school fund of the state. The last vestige of the system disappeared in 1844, simultaneously with the establishment of the first complete system of free public schools in the state.

The color question appeared indirectly in the first law, which made provision for *white* inhabitants only. It was not till 1832 that the distinction between white and black was clearly made. At the January session of that year an act was passed to divide the state school money, extending the age of colored persons who should be counted to twenty-four, on the theory that a larger proportion of them were ignorant and so would need schooling. Separate schools for colored children were maintained in Providence and some other places up to 1868, when a law was passed opening all public schools to all residents without distinction of "race or color."

In neither of the two laws enacted had there been provision for any kind of state oversight, or for the collection of any reports or information pertaining to the working of the law. The necessity for some means of securing this knowledge soon came to be felt, and in 1832 a report upon the subject was made by Oliver Angell, an old teacher, from which we learn that there were 323 schools, with 17,304 pupils, in the whole state, and 228 male, and 147 female teachers. Twenty schools were kept throughout the year, but for the rest the average length was three months. The cost of maintaining these schools was \$21,490, of which the state paid \$10,000.

In 1839 a general revision of all the laws relating to schools was made, under which the school committees, instead of town councils, were clothed with all the powers; returns were to be made by school committees to the secretary of state, school districts were made bodies corporate, special authority was given to persons who wished to unite to build a school-house, and rate or tuition bills were authorized to be issued to prolong the school and meet incidental expenses.

Under this law the amount paid by the state was raised from \$10,000 to \$25,000, but there appears to have been no corresponding increase on the part of the towns. For the years 1843-4 we find that six towns did not raise a dollar for school purposes;

eight raised less than \$100 each, five less than half as much as they received from the state, and but two towns, outside of Providence, more than they received. In fourteen towns having fully one-fourth of the children of the state practically nothing was done for their education.

Such a state of affairs could but beget dissatisfaction, and it was voiced at the October session, 1843, by Wilkins Updike, Esq., representative from South Kingstown, an able lawyer and prominent citizen of that section of the state, who said on introducing an act "for ascertaining the condition of the public schools of the state and for the improvement and better management thereof," that the free-school system as it then existed was not a blessing to the state. His words struck a responsive chord in the minds of his fellow-representatives, and as the result of his ardent and persistent efforts the bill was passed.

The central feature of Mr. Updike's bill was the appointment by the Governor of an agent "to visit and examine the respective public schools of the state, collect information and report to the Legislature upon the condition and most practicable means of improving the same." With this recognition of the place and importance of a central officer who should come into touch with all the schools, and thus acquire a knowledge of the whole field and be able to plan for its needs, dawns the new era of the public schools of Rhode Island.

On December 6, 1843, Governor Fenner issued his proclamation announcing the appointment of Henry Barnard, of Connecticut, as agent under the new law. Mr. Barnard was exceptionally well qualified for the position to which he was summoned. He was a young man in the full vigor of an aggressive manhood, a graduate of Yale, a student, both at home and abroad, of the most recent experiments in educational philosophy and practice, a lawyer, a fine platform speaker, and of great tact and address in dealing with men. Moreover, he had passed through a somewhat similar experience in his own state, so that he knew more perfectly, probably, than any other man in the country, the nature of the work to be done. Back of all these acquisitions from study and experience was the indomitable courage of his convictions in the righteousness of his cause.

The task which lay before him was nothing less than that of revolutionizing the sentiment of the state. While popular education had many strong friends it was not acceptable to the people at large. It interfered with old-time notions as to the rights and responsibilities of the individual, and in many quarters the idea of taxing one person's property to educate another's children was considered almost treason—it was robbery beyond question.

For a year and a half this apostle of the new educational gospel went up and down this state, into the remotest corners, through every valley, reaching every community, large and small, until no man could have remained ignorant of what was going on unless he deliberately shut himself up away from the light. Schools were visited, and pupils and teachers inspired to more earnest efforts; school officials were roused to greater personal activity; the people, through public assemblies, were thoroughly enlightened as to the real condition and the way to improve it. Where a teacher of unusual excellence could be secured, his school was at once made a centre of observation for others from the surrounding country; or, sometimes, he would take his whole school, or a large part of it, and drive off ten or fifteen miles to give an object lesson upon the characteristics of a good school.

The fruit of these labors was reaped at the June session of the assembly, 1845, when an act, in substance as prepared by Mr. Barnard, and containing most of the ideas deemed by him essential to an efficient system, was passed by a large majority.

This law has continued without radical change and constitutes the basis of the present system of schools.

A close inspection of this law of 1845, together with the report which accompanied it, reveals such a comprehensive grasp of the whole subject and such a forecast of the demands of the future on the part of its author, as to arouse our wonder and admiration. First of all, there was provision for one state official, clothed with general supervising powers, and in particular with jurisdiction over, and power to settle, all the countless difficulties which were sure to arise. The three separate forms of organization, district, town and state, were harmoniously related to one another, and their respective functions determined. The advantage of the graded school, arranged according to the ages and acquirements of the pupils, was fully recognized and every provision made in the law for fostering this class of schools, even up to and including the high school. The great superiority of women as teachers for little children was perceived, and a movement began which in five years changed the ratio of two men to one woman to equality, and in fifteen years exactly reversed it. The school-house was made the object of the most careful study; questions of location, outbuildings and grounds, lighting, heating, ventilating and equipment were all fully considered, and the way was provided whereby the necessary means could be secured. The normal school also appears in the plan, though it did not materialize for several years.

To supplement the activities provided for by legislation, teachers' associations were fostered, as well as organizations of men and women interested in the cause of education. Teachers' libraries for purely professional use were placed in every town, and public libraries for general use were also established in all parts of the state. In a word, the whole state was alive with the new educational spirit.

Two or three points deserve particular notice. One is the principle adopted as the basis or condition for the distribution of the state money. Instead of leaving it optional with the towns whether they would do anything themselves or not, no town could receive any state money unless it raised by local taxation one-third as much as it received. This idea of helping those who were willing to help themselves has been strictly adhered to in all subsequent legislation, with a constant tendency to increase the proportion to be borne by the local community, until to-day each town must raise an amount at least *equal* to that received from the state; and in later years aid for the purchase of apparatus and books of reference has been granted upon similar conditions. A second point was the removal of all limits upon the amount which a town could vote for the support of schools. Experience had proved that there was no danger of any extravagance in that direction. Though provision was made in the law for the school district, it is interesting to note that Mr. Barnard's own personal opinion was that "it would be better . . . if the towns would establish and maintain schools without forming districts."

As a result of this law there was at once a great gain in the direction of order, responsibility to definite authority and facility for the accomplishment of desired ends. But there was lack of needed funds for these improvements, as the popular appreciation of the advantages was not extensive enough to secure suitable appropriations. In quite a number of towns the policy was adopted of voting only just enough money to draw the state appropriation, and there are a few towns that still cling to that practice. Hence, good teachers could not be secured and proper buildings were not always erected. It is, indeed, true that there had been a great change in the view the people took of the subject of taxation for public schools, but it must be remembered that they were as a class frugal, accustomed to spending but little money and,

above all, trained in the belief that public service should be gratuitous, or practically so. Hence it is readily understood why appropriations, though relatively large, were too small to serve the needed purpose.

At the end of five years of almost herculean labors, Mr. Barnard's health failed, and he was obliged to resign his position, to the universal regret of the people. The Hon. Elisha R. Potter, of South Kingstown, subsequently an associate justice of the Supreme Court, was chosen to succeed him. Judge Potter had been one of the ardent advocates of the new regime. He was a warm personal friend of the first commissioner, and thus was singularly well fitted to carry on the work. His legal training and experience rendered him unusually valuable in the settlement of disputes and contests of various kinds, so that many of his decisions have been of great service in later years. One conspicuous service rendered by him during his term of office was his decision, with the discussion thereon, of the question as to what extent any and all kinds of religious exercises are allowable in the public schools of this state. In brief, his opinion was that no form of religious exercise could be made obligatory, but that the whole matter must be left to a voluntary arrangement or agreement to be made by all parties concerned.

Following Judge Potter came two gentlemen—each from the successful conduct of a private institution of learning—Robert Allyn and John Kingsbury. Mr. Allyn's administration extended from 1854 to 1857, and Mr. Kingsbury's from 1857 to 1859. Mr. Allyn had been for several years at the head of the Seminary at East Greenwich. He was a fine scholar, an able teacher, and gave to the schools the full benefit of his professional knowledge. Mr. Kingsbury had for thirty years conducted the most successful school for young ladies Providence has ever known, and brought to the discharge of his duties as head of the public schools the same sound judgment, good sense, devotion to duty, high appreciation of his opportunities and unswerving integrity of purpose which had characterized his private life and work. At the end of two years business prospects led him to resign the position for which he was so richly qualified.

From 1859 to 1861, and again from 1863 to 1869, the office of commissioner of public schools was held by Dr. Joshua B. Chapin. Dr. Chapin was a vigorous thinker, a ready speaker and writer, a man of strong character, great positiveness of convictions, and scholarly tastes, fostered and developed by wide reading. His services to the cause were largely through his visits to the schools, addresses delivered at gatherings of the people throughout the state, and his annual reports, which discussed with great thoroughness and clearness the whole range of educational topics.

The interval from 1861 to 1863 was filled by Henry Rousmaniere, who has left but slight traces of his connection with the schools.

In 1869 Thomas W. Bicknell was appointed commissioner, and the six years of his administration were marked by a remarkable degree of activity in all educational affairs. Almost immediately an act was passed creating a state board of education, which was clothed with general supervisory power and designed to unify more fully all the educational forces of the state. There had been an attempt in Judge Potter's day to establish such a body, but it failed, and though often talked of, it did not materialize until Mr. Bicknell took it up in 1869. The next year witnessed the reestablishment of the state normal school; teachers' institutes, for the specific instruction of teachers in methods of teaching, were held in large numbers each year in all parts of the state. Life and energy were apparent on all sides, and the system struck its roots deeper and deeper into the affections and convictions of the people. Appropriations commenced to grow, better school-houses began to appear, teachers' wages were increased, and a decided advance was made in all directions.

Mr. Bicknell's resignation marks the close of the publication of the *Rhode Island Schoolmaster*. This teachers' journal was first established by Mr. Barnard, in 1844, as "the journal of the Rhode Island Institute of Instruction;" it was continued by Judge Potter as the *Rhode Island Educational Magazine*, and assumed its final form and name in 1854, under private hands. In 1860 it was formally recognized by the Rhode Island Institute of Instruction as its official organ, and from that time to the date of its being merged into the union of the several New England teachers' journals, it was managed by that organization. When the limited territory it was specially designed to cover, and the small number of teachers upon whom it could justly call for contributions of articles or funds are taken into consideration, the record which its twenty-one volumes make is highly creditable, both to the zeal and to the abilities of its supporters.

The present occupant of the office of commissioner of public schools succeeded Mr. Bicknell in January, 1875. Among the notable events which have marked the last two decades, are the increase of the amount appropriated by the state for public schools to \$120,000 annually, the establishment and development of a system of granting state aid to free public libraries and for the supply of school apparatus, the enactment of a compulsory law, the growth of the free high school, the idea of the town system of management of schools as opposed to the district method, the adoption of the free text-book plan, and marked improvement in the character and extent of school-house accommodations.

As has been already mentioned, Mr. Barnard established, by the aid of one of Providence's public-spirited citizens, a series of public libraries, some thirty in number, throughout the state, which were known as the Manton libraries. Authority was given the towns to make appropriations for their support, but there was no certain source of revenue for them, and in course of time one after another ceased to exist, for lack of funds to supply new life. Hardly half a dozen maintained even a name. In 1874 Prof. George W. Greene, of East Greenwich, member of the state board of education from Kent county, and at that time a member of the legislature, became deeply interested in the free public library as an educational factor, and in 1875, largely as the result of his labors, a bill was passed providing for the annual contribution by the state of a regular sum of money, for the purchase of books only, to each *free* public library in the state. This sum was to be graduated according to the number of volumes in the libraries, and the administration of the act was placed in the hands of the state board of education. The first year seven libraries were enrolled by the board. Since then each year, almost without exception, has witnessed the accession of one library or more; several of the old, extinct Manton libraries of Mr. Barnard's day were revived and new organizations created; in other communities the spirit of emulation and the desire for equal advantages have aroused them to the establishment of libraries upon an entirely new foundation, until now, at the close of 1896, there are forty-seven libraries on the list of the board, with a total number of volumes of 261,684, and a circulation for the past year of 425,664 volumes.

The first evidence of any legislation, relating in any way to what may be called compulsory education, occurs in 1840, when a law was passed prohibiting the employment of any child under twelve years of age in any factory, unless he shall have attended some school at least three months out of the twelve next preceding. A little later the law was made absolutely prohibitive for all children under twelve, and the educational requirement was added for all between the ages of twelve and fifteen. It is to be said, however, that little or no attention seems to have been paid to this act in any part of the state, so that by 1875, with the development of the industries

of the state, and the rapid increase, especially in certain localities, of the foreign element of the population, this employment of children of school-age in shop and factory had become a crying evil. Agitation of the subject was begun, and one or two unsuccessful attempts were made to secure legislation in the matter. But, in 1883, the Assembly passed a compulsory law, whereby it advanced upon its record of 1845, and subscribed to the doctrine that, not only is the state in duty bound to make provision for the free education of every child, but is equally under obligation to see that no one prevents him from securing his birthright. This act was amended in the direction of greater efficiency in 1893, and the sentiment of the people is much more generally in favor of it than when it was first passed. It was so clearly opposed to the original idea of the rights of the individual that many contended against it upon pure principle. But, as time has demonstrated its need, and experience has proved that it can be enforced without any oppression, opposition has gradually melted away.

In 1875 high schools were supported by the cities of Providence and Newport, and the towns of Pawtucket, Woonsocket, Warren and Bristol, and by District No. 1, of Westerly. Since then, East Providence, Barrington, Lincoln—now Central Falls—Johnston, Cranston, Cumberland and Hopkinton have each established such schools, while in several of the other towns instruction of a higher grade, than that of the ordinary grammar schools, is furnished to those pupils who wish to pursue such studies; so that it is probably true that at least eighty per cent. of the population of the state are within reach of the advantages of a secondary education.

In this state, as in Massachusetts, and throughout New England, the schools have been terribly handicapped by what is known as the district system. Designed to secure local interest and responsibility, it has resulted, for the most part, in a form of atrophy whereby the individual schools have shrunk and dwindled away until, in a large number of cases, they hardly exist. Under the most favorable conditions they have failed to meet the demands of the times, and are found practically where they were one or two generations ago. Efforts have been made at various times to secure the abolition of the districts, but here again the same idea of the pre-eminence of the individual thwarts the proposed improvement, because it is a step in the direction of centralization and away from the individual. Progress, however, has been made, until at the present time the five cities and eleven towns, containing four-fifths of all the population, manage the schools upon the town plan.

From the enactment of the law of 1845, when it was made the duty of the commissioner of public schools "to recommend the best text-books and secure as far as practicable a uniformity," there has been a constant feeling, showing itself now in one way and now in another, that the text-book question needed adjustment. At first uniformity seemed to be the essential feature; again, protection of the people from the effects of the efforts of rival publishers was deemed necessary. Fortunately we were never saddled with any system of state adoption or supply, and at last, in 1893, an act was passed providing in the simplest manner that each city and town shall furnish free to all pupils of the public schools all text-books and supplies used therein. So far as can be judged from the three years' experience this is a satisfactory solution of the problem.

A brief comparison between the condition of the schools as they existed at the time of the passage of Mr. Barnard's law, in 1845, and as they stand to-day, will reveal both the progress the state has made and her present attainments:

	1844.	1896.
School population	25,782	74,200
Enrollment in public schools . .	22,156	59,241
Enrollment in private schools . .	—	12,500
Average length of schools . . .	4 months	9 mos. 10 days
Total number of teachers . . .	519	1,702
Average wages per month, men .	\$25 00	\$100 53
Average wages per month, women,	15 00	50 46
State appropriation	25,000 00	120,000 00
Town appropriation	25,500 00	1,125,664 24
Teacher's wages	48,335 76	817,303 20
Number of school-houses	312	516
Valuation of school-houses . . .	no record	4,147,279 00

SECONDARY AND HIGHER EDUCATION.—The higher education received its first recognition at the hands of James Manning. In the spring of 1764 he opened at Warren a school which he called a Latin school, and in which he declared it to be his purpose to prepare boys for college. This was the beginning of the University Grammar School, the first school of a distinctly secondary grade established in the state. The name "grammar" was given evidently for the same reason which led to the use of the name in the neighboring colonies—to designate a school whose main purpose should be to impart a knowledge of language, both English and classic, through the grammar.

In 1770 the school was removed to Providence in connection with Brown University; and upon the completion of the first college building, University Hall, it was located in one of the recitation-rooms. Beginning under the lead of Mr. Manning, who soon became president of the college, it may be said to have been at first almost a part of the college; but in 1786 it was removed to another building and was carried on entirely independently. In 1794 the college secured control and maintained it for many years. The last epoch in its history begins with the appearance of Merrick Lyon and Henry S. Frieze as proprietors and instructors. Under their energetic management, and as a tribute to their faithful and effective teaching, the school acquired a wide reputation as a fitting-school, and "Lyon and Frieze" was the guarantee of the possession of a first-class knowledge of Latin and Greek. This institution has been a prominent factor in the education and training of Providence youths especially, though it has drawn students from all parts of the country.

The Friends' School was the result of the faith and work of one man, Moses Brown, of Providence. He was the youngest of four brothers, noted for their business sagacity, their patriotism and love of learning. It was due to this man's efforts that Samuel Slater came to Rhode Island, and thereby revolutionized the cotton industry and laid the foundation for a large portion of the present prosperity of the state. In 1764, when only twenty-six years of age, he was chosen to the assembly and here distinguished himself by aiding in securing the charter for the proposed college. In 1774 he became a member of the Society of Friends, withdrew for the most part from active participation in business affairs, and gave himself to the furtherance of the welfare of his fellow-men. In pursuance of this purpose he secured the establishment of a school at Portsmouth, in 1784, for the education of the children of Friends. But the good people evidently were not yet alive to their necessities and opportunities, and, after a brief existence, it was closed for lack of funds.

A small fund, belonging to the school, was in Mr. Brown's hands, which he

kept until 1819, when the school, having been re-established in Providence upon lands donated by him, was once more in a situation to do its appointed work. Mr. Brown lived to the remarkable age of ninety-nine years, dying in 1836, leaving one of the most fragrant memories that cluster around the pioneers of this state. Some twelve or fourteen years before his death he had the exquisite pleasure of witnessing the gift by his son of \$100,000 to the school which had for so long a time been dear to his heart. It is worthy of note that this bequest is said to be the largest single sum of money which any institution of learning had received up to that time.

Though primarily designed for the education of children of their own faith, Mr. Brown and his associates never limited the advantages of the school, but in the spirit of the state freely opened its doors, upon payment of the regular dues, to all who wished to come. At first the course of study was arranged upon the theory that the work there done marked the end of the scholastic education to be given to the youth. With the lapse of time and a more Catholic spirit on the part of the leaders among the Friends, the work has taken on, in addition to the old academic course, that of preparation for college, and to-day holds a good rank among that class of schools, drawing its students from all denominations and all sections.

In 1800, in response to a demand for better advantages for gaining a secondary education, Washington Academy was established at Wickford. As evidence of the thoroughness with which the principles of religious liberty permeated the state, the charter contained the following statements: "Into this liberal and catholic institution shall never be admitted any religious tests. . . . In this academy shall no arts or methods be practiced to allure and proselyte, or to insinuate the peculiar principles of any one denomination. . . . That everything of this nature shall be accounted a misdemeanor." As the village of Wickford was quite a commercial centre at this time, vessels sailing from its wharves, not only along the coast, but to Africa and the East Indies, this school found it necessary to make a specialty of navigation. About 1830 it reached the zenith of its career, and shortly after seems to have declined, both in popular favor and in its general character. Finally, in 1848, the property was leased, by vote of the trustees, to the school district in which it is located.

Among the various localities in the state which made strenuous efforts in 1769 to secure the location of Rhode Island College was the small town of East Greenwich, situated upon a branch of Narragansett Bay, and in all respects a beautiful site for any institution. The desire for superior educational facilities continued to burn in the breasts of several of her public-spirited citizens, until, in 1802, an organization was formed known as Proprietors of Kent Academy—named from the county. The high character of the motives which led to all these movements is very noticeable. Their leaders announce as their primary object that they are "anxious to promote the happiness of posterity, and to continue the blessings of a free and equal government." Of the whole number of charters granted up to 1850 for institutions of learning this is the only one which has maintained a continuous existence. Originally owned and managed by a stock company it passed, in 1839, into private hands, but was carried on upon the same general lines as before. In 1842 the school came under the control of the Providence Conference of the M. E. Church, to be again organized as a stock company, and finally upon a joint plan, the stockholders and the Conference uniting in the support and control.

Through all its changes in management the original purpose of the school seems to have been kept in mind in a wonderful manner, and its pupils and graduates are to be found scattered all over the country, attesting by their success in life to the value of the instruction afforded them by their alma mater. Were a list of the men

who have served here as principals, or of those pupils who have since distinguished themselves in the world, to be given, we should be surprised at the extent of the influence exerted by this single seminary of learning.

The history of Kingston Academy presents a most interesting chapter in the educational development of the state. Its origin really dates back to 1695, when Samuel Sewall, of Boston, but a large land-owner in the Narragansett country, made a trust of five hundred acres of land situated in the limits of what was called the Pettaquamscutt purchase, "for the procuring, settling, supporting and maintaining a learned, sober and orthodox person, from time to time and at all times forever hereafter, to instruct the children and youths of the above-mentioned town of Pettaquamscutt, as well English there settled, or to be settled, as Indians, the aboriginal natives and proprietors of the place, to read and write the English language and the rules of grammar."

But little seems to have been accomplished under this trust until 1781, when a school-house was built on Tower Hill, where a school was maintained till 1819, when it was moved to Kingston, and in 1833 was incorporated under the name of "Pettaquamscutt Academy." In 1826 the name was changed to Kingston Academy, which it retained until it was disbanded as an academy in 1854. Since that time the proceeds of the trust fund have been used to prolong the public school provided by the town, children from any portion of the original "purchase," whether now included in South Kingstown or not, being permitted to attend this extra term.

From the opening of this school on Kingston Hill, or at "Little Rest," as it was called in local speech, up to within a few years of its close it enjoyed a high degree of favor and prosperity. Students gathered here from all parts of the country, while there were many representatives of foreign lands, whose presence may be accounted for by the extensive commerce then carried on between the southern portion of the state and the West Indies and Mediterranean. One is struck in looking over the list of subjects taught in these early days in these academies with the prominence given to navigation and surveying. Evidently the school was looked upon then as a place for specific preparation for the business of life.

Two other academies were started, one in 1810 in Smithfield, and another in 1839 at North Scituate. The Smithfield academy came to its fullest development from 1835 to 1850, under the principalship of James Bushee. He was an especially strong and skillful teacher of the sciences, so that the graduates, or pupils, of the school came to be sought for their scientific knowledge. Excellent work was also done in preparation for college.

The school at North Scituate was founded by the Free Baptists, and was at first known as Smithville Seminary, under which name it continued until it was temporarily closed in 1854. In 1863 it was re-opened as Lapham Institute, the property having been bought and rendered available by Benedict Lapham. The fact that the school was situated ten miles from the nearest railroad station, and that it was generally recognized as a denominational institution, tended to restrict the number of students unless they were moved by loyalty to that denomination. The instruction given there was often of a high order; three of its principals in succession were called to professorships in different colleges; one of its graduates has won for himself and his native state the highest honor as a diplomat and a scholar,—the Hon. James B. Angell, LL.D., now president of the University of Michigan.

This closes the record of the incorporated academies. Numerous schools, of varying degrees of merit and scope of work, were maintained in different parts of the state by private individuals, notably in Providence and Newport. Hence there

has never been a time when the youth of the state were not fairly well provided, as the times were, with facilities for acquiring either a good preparation for college, or a practical equipment for commerce or business. It must have been noticed that those academies which lapsed all closed at or about same time. The reasons for this general failure of patronage, which was really the cause of the suspension, were undoubtedly the growth of similar institutions in the south and west, from which localities in the earlier days many were wont to come to New England for their education, and also the introduction of free high schools here in our own borders.

We cannot close this record of the provisions afforded for secondary education without a reference to the free high schools. The first public high school in the state was opened March 20, 1843, by the city of Providence. Vigorous efforts were made at first to overthrow it, but the demand for the facilities which it proposed to afford was too great. The strength of the feeling in its favor may be judged from the fact that the year it was opened eighty boys and eighty-four girls were admitted. Last year fourteen hundred pupils were enrolled in the two high schools of the city, and two large additional buildings are now in process of erection. About the same time that Providence moved in this direction, Newport established a high school; in 1847 Warren opened a similar school, and in 1849 schools of that grade were begun in Bristol and Woonsocket, so that by 1850 there were five *free* schools giving instruction of similar character to that which heretofore could only be obtained upon payment of a tuition fee.

Brown University enjoys the distinction of having been for more than one hundred and twenty-five years the only college in the state. Founded, as we have before noted, in 1764, in Warren, as Rhode Island College, it was removed to Providence in 1770. The college owes its foundation undoubtedly to the Rev. James Manning, a native of New Jersey and a graduate of Princeton, who on coming into Rhode Island soon became convinced of the need of such an institution.

The early history of Brown, like that of so many others, was one of very small beginnings, great hardships, discouragements without number, but with here and there a sign that kindled new hope and gave fresh courage. Funds were sought from all sections of the country, and even from England and Wales. As an evidence of the exceedingly narrow basis upon which the first steps were taken, it will be noted that at the second meeting of the corporation it was reported that \$1992 had been subscribed for the building and an endowment. The great need of funds is discerned from a vote of the corporation in 1803, that the donation of \$5,000, if made within one year, should entitle the donor to name the college. In accord with this vote the name was changed to Brown University in 1804, in recognition of the gift of \$5,000 by Nicholas Brown, "to found a Professorship of Oratory and Belles lettres." From 1776 to 1782 all college work was suspended on account of the war, and for a portion of the time the college building known as University Hall was occupied either as barracks or as a hospital. The pecuniary straits to which they were reduced is revealed by President Manning's offer to begin work again upon a salary of £60 per annum.

The charter of Brown University is somewhat peculiar in that it provides for a body of officers divided among the different denominations according to a fixed plan. It is specified that the control of the college shall be forever in the hands of the Baptists, but the other denominations at that time found in these parts are given a definite place upon the board. The president, twenty-two out of thirty-six trustees, and eight out of twelve fellows, are all to be Baptists; five trustees are to be Episcopalians, five Friends, and four Congregationalists, while there are to be four fellows

from any denomination. The favor of the people at that time was shown by the exemption from all taxation, which was granted by the charter to the college itself, and to all its professors. A very recent decision of the Supreme Court has established the validity of that exemption, even in case of property purchased by the college in the business section of the city and held as an investment. By mutual agreement, some years ago, the exemption of property of the professors was limited to ten thousand dollars.

The college has steadily grown, though at times seemingly quite slowly. From one building at the beginning, serving as chapel, library, recitation halls, refectory, and dormitories, it has increased to fifteen, so constructed and arranged, as to afford special and uninterrupted facilities for nearly all the various branches of study pursued. From the humble sum of less than two thousand dollars its invested funds have risen to over eleven hundred thousand dollars, while its land and buildings are estimated at as much more.

Perhaps the most marked epoch in the history of Brown University, was President Wayland's administration, from 1826 to 1855. Francis Wayland was easily a leader among leaders. Endowed with unusual native abilities, he had cultivated them by earnest and faithful labor, so that in whatever field of effort he entered, he was at once recognized as an authority. In the class-room his power and influence were irresistible, and no man could sit under his instruction and fail to be moulded to some extent by this master mind. But it was his views upon the whole system of collegiate education that called the attention of the whole country to this comparatively obscure college. In a lengthy report, which he presented to the corporation, he analyzed the existing state of collegiate instruction in the country, showed how it wholly failed "to furnish the agriculturist, the manufacturer, the mechanic, or the merchant with the education that will prepare him with what his life is to be devoted to, and boldly proclaimed his belief that our educational advance must be along the line of the useful arts.

The idea of President Wayland was never fully carried out, for various reasons; but there was inaugurated at that time the beginning of that revolution in secondary education, which is still going on, whereby the seat of power is being transferred from the realm of literature to that of science. The "New System in Education," as Wayland called his scheme, was the first clear conception and statement of what many had for years been feeling and groping after.

Under the present administration of President E. Benjamin Andrews, the college has received another strong impulse, and has developed with startling rapidity, both in the scope of the work done and in the number of students. From a corps of twenty-two professors and instructors and two hundred and eighty-five students in 1889, the institution has now, in 1896, eighty-nine names upon her faculty lists, with an enrollment of nine hundred and eight students. It is impossible, in the brief space at our disposal, to sketch the growth during this time in the character of the work done. Suffice it to say, that opportunities for advanced or strict university work are offered in nearly all departments, while several new branches have been added. No degrees are now given "in course," but all except those of D.D. and LL.D. are granted upon evidence of specific work which entitles the recipient to the distinction. In the friendly strife for honors in which all our New England colleges are now engaged, it is evident that Brown is to be no mean competitor, whether it be in academic halls or upon athletic fields.

Under the original act of Congress dividing a portion of the public lands among the several states for the promotion of agriculture and the mechanic arts, the share fall-

ing to Rhode Island was assigned by the General Assembly, in 1863, to Brown University, upon condition that a department of agriculture should be organized, and that the state should have the privilege of nominating, upon a free scholarship, one student for each one hundred dollars of income derived from the proceeds of the land grant.

The college realized \$50,000 in round numbers, from the sale of the land scrip assigned to it, and up to 1887 the arrangement continued. At intervals more or less dissatisfaction was expressed by leading representatives of the farming interests of the state, with the manner in which the affair was managed, and in 1887, when the Hatch act was passed, the whole question came up for discussion, and the outcome was the passage of an act, March 23, 1888, establishing the Rhode Island Agricultural School, and connecting the experiment station, provided for by the Hatch bill, with this institution instead of with the college. In response to the demands of the "new Morrill bill," passed by Congress in 1890, the scope of the new institution was enlarged, and it became known as the Rhode Island College of Agriculture and Mechanic Arts. Some little difficulty arose between Brown University and the new college; but it was finally adjusted amicably—the state granting the university a specific sum, in consideration of which she turned over to the Agricultural College the original fund, and waived all claims to all subsequent appropriations by the general government.

Starting with absolutely nothing in the shape of equipment, and having to depend solely upon the good will of the legislature for the funds necessary to buy land, erect buildings, and secure apparatus, the course of the college could not be otherwise than slow and difficult. It stands to-day, however, in a condition to do work of a high order, and has upon its faculty men of well-known reputation for ability and skill in their respective departments. Substantial buildings for the administrative functions of the school, laboratories, recitation-rooms, dormitory, boarding hall, have all been built; the farm upon which the college is located has been almost entirely transformed, and a close and vital connection has been established between the institution and the farming interests of the state.

The history of normal schools in this state dates from Mr. Barnard's first law of 1845. No results were secured from it, however, until in 1850 Brown University opened a normal department under the care of Prof. Samuel S. Greene. This move on the part of the college—one of the features of readjustment which President Wayland sought to make—was very significant, especially in view of the events of these later years among colleges and universities, but it was soon found that it was not, at that time, the best method of securing the desired results. The next step was the formation of a private normal school in Providence, in October, 1852, in the conduct of which Professor Greene associated with himself such men as William Russell, Dana P. Colburn and Arnold Guyot. This came nearer to the teacher than the college course, and a year's experience demonstrated its value and necessity. In January, 1854, the school committee of Providence determined that a normal school for the education of teachers should be added to their system of instruction. The city council responded to the action of the school committee and appropriated the requisite funds, and it seemed as if the school was to be at once established as a city school. But at the following May session the General Assembly passed an act creating a State Normal School, and made an appropriation of \$3,000 for its support the first year. The city generously gave way to the state, and the new school was inaugurated May 29, 1854, with becoming ceremonies. Seldom has any public enterprise moved from inception to finish so rapidly. In this instance it was undoubt-

edly due to the fact that the state did exactly what the city was intending to do; namely, accepted the school already started under Professor Greene, saving thus much time and labor, and securing instructors of the highest order of talent.

The school was maintained in Providence for four years, doing a most excellent work, and demonstrating beyond question its value in a system of instruction. The question of additional accommodations soon came up for discussion, more room was needed, and, upon the offer of the town of Bristol to furnish this necessary requisite free of expense to the state, the Assembly decided to locate the school in that place. This removal from the city, and away from the practical centre of the state, was prejudicial to the interests of the institution, and when, the year after moving, Mr. Colburn, the principal, was killed by an accident, the progress of the school was very materially checked. In 1865 the number of students had become so small it was deemed best to close it.

For six years the state was without any special facilities for the training of teachers, but at the January session, 1871, as one of the results of the efforts of Commissioner Bicknell, a bill was passed organizing a normal school, and liberal appropriations were made for its support. The school was opened in September, 1871, in Providence, in what had been the High Street Congregational Church, with James C. Greenough, of Westfield, Mass., as principal. The school at once commanded the attention and confidence of the community, and students came to it in large numbers. It was not long before it became evident that larger and more complete quarters must be procured. Accordingly, when the city of Providence built the new high school in 1878, the state bought the old high school-building, remodeled it, besides adding several rooms, and, in January, 1879, the normal school was installed in a home of its own.

With the establishment of the school in its new apartments, it entered upon a career of increased prosperity, and for nearly a score of years has continued to grow in favor with the state, until it has now reached the point where it must take a new departure, and a new building, ample in size, complete in all directions, is now in process of construction. The history of the development in the work of the school reveals, better than anything else, its real growth and progress. At first the regular course for all students was two years, the academic and professional work being carried on side by side. Step by step the curriculum has been enlarged, separated and reorganized, until to-day the course for those who enter upon examinations is five years, the first three being mainly devoted to academic work, or the acquisition of the requisite knowledge and culture, and the remaining two years wholly to professional study and practice. Graduates of high schools are admitted upon their diplomas of graduation, and all who prove to be possessed of the required understanding of the elementary subjects are at once put upon the professional course, in which ample facilities are provided for observation and practice in regular schools.

Reference should be made here to an institution which has had a large influence upon the educational development of the state—the Rhode Island Institute of Instruction. Like so many other excellent features of our life, it was the creation of Henry Barnard. Recognizing at the outset the value of organization and co-operation, Mr. Barnard in 1844, through the aid of a few friends of education, formed this association upon the plan of the American Institute of Instruction, the first of its kind in the country. Two distinct, and yet related, functions were devolved upon the institute—one, to work with and for the teachers, inspiring, guiding, directing and instructing them; the other, to arouse public sentiment and create conditions favorable to the schools. Throughout its history meetings have been held at various

points all over the state, which have been centres for discussion of all advance movements, and in many ways it has proved a most valuable agency in carrying forward the work of popular education. As the years have gone by it has come to be more and more a teachers' organization, and they rally to its support so thoroughly that at the present time nearly three-quarters of all the teachers of the state are enrolled upon its membership list by the payment of an annual tax.

The small size of the state has precluded her from attempting to do much in the way of providing educational facilities for the defective and dependent classes. The first provision for anything of the kind was a yearly appropriation to pay for the tuition of such deaf, blind or feeble-minded children as should be appointed by the governor as state beneficiaries at some of the institutions of other states. This began in 1845 and has continued down to the present time, varying in form of administration, but not in principle. At present, the general control of the whole subject is in the hands of the State Board of Education, the governor making appointments upon their recommendation.

In 1877 the General Assembly, as a kind of an experiment, made a special appropriation for the instruction, in Providence, of a few deaf children, according to what is known as the oral method. The results so commended themselves to the legislature that a day-school for the deaf was finally created and placed under the care of the State Board of Education. It continued as a day-school, constantly growing in numbers and usefulness, until in 1892 the legislature decided it was best to change the school into a permanent home or boarding-school, and a building was erected and a special board of trustees placed in charge of the enterprise. Beginning with five pupils, the roll had increased to forty-three when the day-school was closed. Since the home was opened the numbers have grown to over sixty. The method of instruction employed is the "pure oral," all use of signs being discouraged so far as possible.

The "State Home and School for Dependent Children" was established in 1884, to provide both a "home" and a "school" for those children who would otherwise be inmates of town or state poorhouses. It is situated upon a farm about three miles from the centre of the city, having a beautiful site and largely ideal conditions for such an institution. The children are housed upon the cottage or family plan; there is a good graded school upon the premises, and, so far as it is possible, considering the youthfulness of the inmates, they are systematically trained in habits of neatness and industry, and are led to make themselves useful in various ways. As fast as possible they are placed in good private homes, with a view to their development into self-respecting, self-supporting men and women. The average number in the school of late years has been about one hundred and twenty.

A reform school for both boys and girls was established by the city of Providence in 1850, to which the state sent subjects from other towns. Some schooling was provided for the inmates, but more stress was laid upon the work side, it being thought that, so far as they could, they should be made to pay their own way. In 1880 it was transferred to the state, under whose care it has since been maintained as two separate schools—the Oaklawn School for girls and the Sockanosset School for boys. As at the state home and school the cottage plan is followed, a thorough system of elementary instruction has been adopted, and in late years the subject of manual training has received special attention. At the present time there are taught to the boys carpentry, machine work, blacksmithing, printing, bricklaying, stonelaying, painting and some other handicrafts as occasion arises, so that the opportunity is afforded the boys for acquiring a sufficient knowledge of some one trade to

serve as a foundation upon which to build a successful career. Laundry work, sewing and the care of the house constitute about all that it has so far been feasible to provide for the girls.

Reference has just been made to manual training at the Sockanosset School. The record of this branch of educational development is very short. Rhode Island has not been disposed to outstrip her sister states in New England by her advocacy and adoption of this quite "new departure" in education. The kindergarten, the natural forerunner of manual training as an educational factor, was brought into the state about 1880, but made slow progress until within the last five years. In that time there has been quite a development in general interest and attention, kindergartens have been established in connection with the public schools in several places, and there is now promise of their spreading quite generally throughout the state.

Manual training proper is at present represented by the Manual Training High School of Providence and the Townsend Industrial School of Newport. These are both thoroughly organized, well-equipped schools, designed to teach, not trades, but the principles underlying the great majority of all trades, and to give the student manual power and skill. The former was opened for pupils in 1892, and the latter has but recently received its final equipment, so that it is too soon in either case to look for definite results.

We cannot better close this brief survey of educational progress in Rhode Island than with a reference to the distinctive provisions made for the education of women. To John Kingsbury, of whom mention has already been made, belongs the honor of having led in the movement for the higher education of women. Here as everywhere prevailed the low standard of learning which it was thought necessary for a young lady to acquire. Mr. Kingsbury, after reflecting upon the subject, determined in 1828 to establish a school which should offer to young ladies as good opportunities as were available to their brothers. For thirty years he carried on his school upon such a high plane of excellence, both as to spirit and scope of work, that it impressed its characteristics visibly upon the home life of the entire city. Not only did he endeavor to elevate the intellectual life, but moral standards were exalted, ideas of duty and responsibility were developed, and every effort was made to fit his pupils for happy, useful lives.

In 1834 a school for young ladies, called the Warren Ladies' Seminary, was organized in Warren. This was the first boarding school for girls in Rhode Island, and rapidly grew in favor, both at home and abroad. Its main course of study was purely English, but provision was made for instruction in Latin, Greek and French. It reached its highest development under the guidance of Mr. Asa Messer Gammell principal from 1842 to 1857. In the latter year the building was destroyed by fire, and never rebuilt. In all, some fifteen hundred pupils were enrolled upon its lists, many of whom came from other states of the Union and some from the West Indies.

During the last half century other private schools for young ladies have been established, and the free high schools, with their equal advantages for both boys and girls, have carried forward the work begun by Mr. Kingsbury, until it finds its legitimate fruition in the opening to women of the college of which he was the honored chancellor for many years.

At first, in 1891, only the examinations were made free to women; the following year all its degrees were made available, and a year later all its graduate courses were opened to them on the same terms as to men. But while women are not yet received into the undergraduate classes, special provision is made whereby they enjoy similar advantages to those offered to the other sex. A building is now in pro-

gress of erection which will be ready for occupancy in the fall of 1897, when the "Women's College" will be formally established as a department of Brown University. At the present time one hundred and fifty-seven women are entered as students upon the registry of the college.

With the recognition of the kindergarten as the first step in the process of public education and the extension of full collegiate and university privileges to women, Rhode Island comes to the close of the nineteenth century abreast of her sister-states in the struggle to provide a complete and effective training for her youth. Conservative by nature, she is still fully alive to the demands of the times, and when once convinced that the "new" ought to supplant the "old," she moves forward with no faltering step. The advance of the last half century is her pledge to the future.



CHAPTER CLXV.

BROWN UNIVERSITY.

BY H. L. KOOPMAN.



THE brief and idyllic residence of Bishop Berkeley in Rhode Island, from 1729 to 1731, produced no immediate intellectual result in the colony beyond the important service of founding the Redwood library at Newport. But the idea of a Christian college in America, which the great philosopher had fondly hoped to establish, did not depart with his return to England, though he did not live to see it realized in the colony of his choice, since a generation was destined to pass away before the establishment in Rhode Island of an institution of higher learning. The movement, which finally succeeded, received its impulse from a different quarter, and was organized under humble auspices from those which the Anglican dean and future bishop had contemplated.

The immediate origin of the institution, now known as Brown University, is traceable to the fact that in the middle of the eighteenth century there was no college in the American colonies hospitable to Baptist students, except Princeton, and that was under the control of the Presbyterians. Without rehearsing the story of past intolerance it may be sufficient to state that the Baptists at this time throughout the colonies were oppressed in various ways by the dominant religious order, and that this illiberal spirit was not absent from the two existing New England colleges.

A movement was therefore set on foot by the Philadelphia Baptist Association to establish an institution of higher learning which should be under the direction of their own denomination. The prime mover in this enterprise was the Rev. Morgan Edwards, of Philadelphia, who proposed the plan in 1762, and also obtained abroad the first funds for the endowment of the college five years later; but the final success of the undertaking was due to the talents and devotion of James Manning, who, two weeks after his graduation from Princeton, was appointed the agent of the Philadelphia association to establish in Rhode Island a Baptist "seminary of polite literature."

The choice of location was due no doubt in part to the already existing desire in Rhode Island which would lead it to welcome such an institution, as also in some measure to the fact that the colony of Rhode Island had been founded by the famous Baptist, Roger Williams, and that its affairs were still largely in the hands of the denomination; but it was chiefly due to the existence in Rhode Island of absolute religious freedom. Moreover, a colony containing the two important towns of Newport and Providence might naturally be regarded as a promising field for higher education. Newport, at this period, was the second city in New England, containing ten thousand inhabitants, and was a centre of wealth and refinement. The popula-

tion of Providence was about half as great, but already, in the language of a report presumably by Judge Howell, it enjoyed "most flourishing circumstances. Its trade was open to almost all parts of the world, its navigation extensive and prosperous, its stores and warehouses crowded with all sorts of merchandise, its streets thronged with foreigners who came hither to advance their fortunes by trade and commerce."

Accordingly in Rhode Island a charter was secured in 1764 for a "College or University in the English Colony of Rhode Island and Providence Plantations in New England in America." The provisions of the charter assured to the Baptists a bare majority in the government of the institution while it associated with them other denominations in such a way as forever to prevent narrow or sectarian control. The number of the trustees was fixed at thirty-six, of whom twenty-two must be Baptists, five Quakers, four Congregationalists and five Episcopalians; the other branch of the corporation, the Fellows, was formed of twelve members, eight of whom, the president among the number, must be Baptists, the rest being without denominational specification. Thus, four of the most influential places in the government of the University may be filled without any regard whatever to the religious preferences of their incumbents. The free and unsectarian character of the charter is further illustrated by the following provisions:

"It is hereby enacted and declared that into this Liberal & Catholic Institution shall never be admitted any Religious Tests but on the Contrary all the Members hereof shall forever enjoy full free Absolute and uninterrupted Liberty of Conscience and that the Places of Professors, Tutors and all other Officers the President alone excepted shall be free and open for all Denominations of Protestants and that Youths of all Religious Denominations shall and may be freely admitted to the Equal Advantages Emoluments & Honors of the College or University and shall receive a like fair generous & equal Treatment, during their Residence therein, they conducting themselves peaceably and conforming to the Laws and Statutes thereof: And that the Public teaching shall in general Respect the Sciences and that the Sectarian differences of opinions shall not make any Part of the Public and Classical Instruction."

Warren, a flourishing town ten miles south of Providence, was originally selected as the seat of the college, and here in April, 1764, James Manning opened a Latin school, preparatory to college instruction. This school still exists in Providence, under the name of the University Grammar School. In 1765 Manning was formally appointed president of the college, and in 1766 David Howell was made his assistant. These two, until 1774, constituted the entire faculty; Manning at first teaching Languages, later Moral Philosophy, English and Oratory. At Warren, in 1769, the first class of seven members was graduated. But the question of erecting a building for the college resulted in a contest among the leading towns of the colony for the honor of becoming its site, with the result that Providence, by making the largest contribution to the building fund, secured the coveted distinction, and here, in 1770, the foundations of the present University Hall were laid. Up to 1777 the number of students graduated had been sixty, but for five years and a half during the Revolution the work of the college was suspended and its building turned into a barrack and hospital. In 1782 the exercises were again resumed, and before the close of the century a class numbering twenty-six had been graduated.

James Manning was born in Elizabethtown, N. J., in 1738. He was educated at Hopewell Academy, in the same state, and at the College of New Jersey, graduating in 1762, second in his class. He was twenty-four years of age when he entered upon the duties which were to form his life-work, though, besides his position as president of the college, he held other important public offices. He served as pastor of the

Baptist Church, six years at Warren and twenty years at Providence. In the Congress of the Confederation he represented Rhode Island, while on his return he contributed largely to the adoption of the new Federal Constitution by the state. He died suddenly of apoplexy in 1791. David Howell was born in New Jersey in 1747, and was graduated from the College of New Jersey in 1766. He served as tutor, 1766-69; as professor of mathematics and natural philosophy, teaching also Hebrew and French, 1769-79; of jurisprudence, 1790-1824. He was a fellow in the corporation, 1773-1824. He served as member of Congress under the Confederation, and was federal judge for the Rhode Island district during the last twelve years of his life.

The second president of the college was the Rev. Jonathan Maxcy, a graduate of the class of 1787. His brilliant qualities as orator and teacher attracted students, while the character of its alumni was already giving the college a standing throughout the country. Dr. Maxcy was born in Attleboro, Mass., in 1768. Immediately upon his graduation he was appointed tutor, and in 1791 he was chosen pastor of the Baptist church in Providence. He was acting-president, 1792-97; and president, 1797-1802. At the latter date he resigned his position to accept the presidency of Union College, which again, after two years, he left to become president of South Carolina College. He died in 1820.

President Maxcy's successor was the Rev. Asa Messer, who occupied the presidential chair until 1826. Under his administration the number of students decidedly increased, the class of 1825 graduating with a membership of forty-eight. The financial condition of the college was no less flourishing. Dr. Messer was born in Methuen, Massachusetts, in 1769. He was graduated under President Manning in 1790; served as tutor from 1791 until 1796; when he was appointed professor of learned languages; from 1799 to 1802 he was professor of Mathematics and Natural Philosophy. Dr. Messer resigned the presidency in 1826, and retired to his estate in the neighborhood of Providence; afterwards holding several important municipal offices. He died in 1836.

In 1827 the Rev. Francis Wayland became president of the University, to which for over a quarter of a century he devoted his splendid talents as administrator and teacher, while his fame as a writer made the reputation of Brown University literally world-wide. He effected slowly an entire re-organization of the Institution, anticipating many of the latest educational reforms. The "new system," as it was called, was not put into effect until 1850, from which date it was in force until 1855. The bachelor's degree was given for a three years' course, the master's degree for a four years' course. A large range of elective studies was permitted, and new courses in science were opened. After more than twenty-eight years of arduous service Dr. Wayland resigned the presidency in 1855. Dr. Wayland was born in New York city in 1796, and was graduated from Union College in 1813. He fitted himself for the practice of medicine, but decided to enter the ministry. After studying a year in Andover Theological Seminary, he served as tutor in Union College for four years. From 1821 until 1826 he was pastor of the First Baptist Church in Boston. He was also professor of natural philosophy in Union College 1826-27. Dr. Wayland was distinguished not only by his intellectual strength, but also by his enthusiasm for missionary enterprises, and by his concern for the spiritual interests of the students intrusted to his charge. His administration was marked by a strict enforcement of discipline. During his presidency new buildings were erected, the college grounds were laid out and large additions were made to the funds of the institution. The library was greatly increased and established on a sound financial basis. Upon his

retirement he devoted himself to authorship and religious work, serving for over a year as pastor of the First Baptist church in Providence. He died in 1865.

The fifth president of the University was the distinguished educator, Barnas Sears, a graduate of the class of 1825, who presided over the affairs of the institution from 1855 until 1867. His term of service covered the financial crisis of 1857 and the Civil War, yet the University made steady progress, the funds being increased and a system of scholarships established. The most radical feature of the "new system" was abandoned, and four years were again required for the attainment of the bachelor's degree. Dr. Sears was born in Sandisfield, Massachusetts, in 1802. After completing his course at Brown he entered the Newton Theological Institution, graduating in 1828. He was pastor of the First Baptist Church in Hartford, 1827-29; professor of languages in Hamilton Theological Institution, 1829-36; professor of Christian Theology, and president of Newton Theological institution, 1836-48. In the latter year he succeeded Horace Mann as secretary of the Massachusetts board of education, a position which he held with distinction until his call to the presidency of Brown University in 1855. In 1867 he was persuaded to accept the position as general agent of the Peabody Education Fund, a trust which he administered with rare skill and sympathy until his death in 1880.

The four succeeding years, 1868-1872, cover the administration of Alexis Caswell, a graduate of the class of 1822, who had been professor of mathematics from 1828 to 1863. He enlarged the resources of the Institution and organized new departments of study. Dr. Caswell was born in Taunton, Mass., in 1799. After graduating from Brown with the highest honors of his class, he served as tutor in Columbian College, 1822-25, and as professor of Ancient Languages, 1825-27. He was pastor of a Baptist Church in Halifax, N. S., for one year, and had entered upon the pastorate of the First Baptist Church in Providence when he was called to a professorship in the University. He was one of the founders of the American Association for the Advancement of Science, and of the National Academy of Sciences. He died in 1877.

The seventh president of the University was Ezekiel Gilman Robinson, a graduate of the class of 1838. He administered the affairs of the Institution for the seventeen years from 1872 until 1889. The endowment was nearly doubled, new buildings were erected, new courses were added, and the beginnings of graduate study were made. The number of students also considerably increased, while a higher intellectual and social spirit was infused into their character. Dr. Robinson was born in Attleboro, Mass., in 1815. He was graduated at the Newton Theological Institution in 1842; was pastor, Norfolk, Va., 1842-45; Cambridge, Mass., 1845-46; professor of Hebrew, Covington Theological Institution, 1846-49; pastor of the Ninth Street Baptist Church, Cincinnati, O., 1849-52; professor of Christian Theology, Rochester Theological Seminary, 1852-60; president, 1860-72; president and professor of Moral and Intellectual Philosophy, Brown University, 1872-89. He was also president of the American Baptist Missionary Union, 1877-80; lecturer, Andover Theological Seminary; lecturer on Preaching at the Yale Divinity School, and on Apologetics and Evidences of Christianity at Crozer Theological Seminary, 1889-94. He was professor of Ethics and Apologetics at the University of Chicago, 1892-94, and was trustee of Vassar College, 1861-94. He was editor of the *Christian Review*, 1859-64, and author of important works in theology and philosophy. He died in 1894.

The present occupant of the presidential chair is Elisha Benjamin Andrews, a graduate of the University in the class of 1870. With his administration the life of

the institution as a University properly begins. Between 1889 and 1897 the number of courses has been increased from sixteen to twenty-five; the number of instructors from twenty-two to eighty, and the number of students from two hundred and sixty-eight to nine hundred and eight. While the contrast presented by these figures is a striking one, it gives only a hint of the great expansion of the University during the present decade. The resources of the institution have been taxed to their utmost to meet the demands put upon them both by the increased number of students, and by the great additions to the curriculum. But it may confidently be asserted that never before was so much good work, on the part of either instructors or pupils, done at Brown University as at the present time. Dr. Andrews was born in Hinsdale, N. H., in 1844. He entered the Union army at the age of seventeen, and rose to the rank of second lieutenant. On completing his course at Brown, he served as principal of the Connecticut Literary Institution, 1870-72. He then entered Newton Theological Institution, from which he was graduated in 1874. He was pastor of the First Baptist Church in Beverly, Mass., 1874-5; was president of Denison University, 1875-79; professor of Homiletics and Pastoral Theology at Newton, 1879-82; of History and Economics at Brown University, 1882-88, and of Political Economy and Finance at Cornell, 1888-89. In the latter year he entered upon the presidency of Brown University, assuming, at the same time, the professorship of Moral and Intellectual Philosophy. He spent the year 1882-3 in Germany, as a student of history and economics, and during the year 1896-97 he has enjoyed leave of absence, which he has occupied in travel, chiefly in the countries around the Mediterranean. President Andrews is widely known through his various historical and economic publications, the most recent of which is the "History of the Last Quarter-Century in the United States."

The first contributions towards a college fund were obtained by the Rev. Morgan Edwards in England in 1767 and 1768, and amounted to \$4,500. In 1769 and 1770 the Rev. Hezekiah Smith obtained subscriptions, to the amount of \$2,500, in South Carolina and Georgia. The Hon. Nicholas Brown in 1792 gave \$500 for the purchase of law books for the library. This was but the first of a series of benefactions which, in all, represented the value of \$200,000. In recognition of this generous support, the name of the college was changed in 1804 to Brown University. In 1825 the permanent funds of the University amounted to \$31,300. In 1850, in response to an appeal by President Wayland, the sum of \$128,000 was raised, the funds in 1854 amounting to \$200,000. Under the presidency of Dr. Sears, over \$220,000 was collected in subscriptions. During the administration of President Caswell this subscription was increased to over \$330,000. In April, 1873, at the close of President Caswell's term of service, the funds were in excess of \$550,000. In April, 1889, the last financial report made under the administration of President Robinson, the funds amounted to more than \$980,000. In the first year of President Andrews' service the figure had reached a million. In April, 1896, the funds exceeded \$1,100,000. In 1863 the University received from the state of Rhode Island land-scrip, due under act of Congress, July 2, 1862, from which \$50,000 was realized as a scholarship fund. Although the arrangement proved unprofitable to the University, the money was retained until 1894, when it was returned to the state. At the same time the state paid \$40,000 in consideration of the relinquishment by the University of its claim upon the Morrill Fund, due under act of Congress of August 30, 1890.

The University has now about one hundred scholarships, the income of which is given to deserving students in need of pecuniary assistance. The Fellowship of

the Grand Army of the Republic, amounting to \$10,000, provides by its income opportunities for advanced study to alumni of the University. The Philadelphia Alumni Fellowship for the assistance of graduate students at the University will soon be available.

The grounds of the university, which in 1772 were stated by President Manning to be "on a most beautiful eminence in the neighborhood of Providence," would now be described as situated at the head of College street, only half a mile from the City Hall, and removed more by height than distance from the busiest portion of the city. The campus, including the athletic grounds, contains about ten acres, or one-third of the land owned by the University. The buildings are fifteen in number: University Hall, built in 1770 at an original cost of about \$12,000, renovated in 1850 and again in 1883 at an expense of \$50,000; the Grammar School building, erected in 1810; Hope College, given by Nicholas Brown in 1822, constructed at an estimated cost of \$20,000, renovated in 1891 at a cost of \$35,000; Manning Hall, built in 1834, the entire cost of which was borne by Mr. Brown; Rhode Island Hall, costing \$20,000, built in 1840; the President's House, the gift of Nicholas Brown, erected in 1840 at a cost of \$7,000; the Chemical Laboratory, built in 1862, costing \$15,000; the Library, erected in 1878 by John Carter Brown at a cost of \$120,000; Slater Hall, the gift of Horatio Nelson Slater, Sr., erected in 1879 at an expense of \$30,000; Sayles Memorial Hall, erected in 1881 by William Francis Sayles, representing an outlay of \$100,000; Wilson Hall, built in 1891 at a cost of 100,000, the bequest of George Francis Wilson; the Ladd Observatory, the gift of Herbert W. Ladd, erected in 1891 at a cost of \$25,000; the Lyman Gymnasium, costing \$70,000, built in 1891, and named in honor of the chief donor, Daniel Wanton Lyman; Maxcy Hall, erected in 1895, costing \$50,000; the Women's College, built in 1897 at an expense of \$35,000. Besides the four dormitories, University Hall, Hope College, Slater Hall and Maxcy Hall, four dwellings in the neighborhood are controlled by the University for dormitory purposes. They are known as the Messer, Brown street, Pease and Howell houses.

The academic year begins on the third Wednesday in September and ends with Commencement Day on the third Wednesday in June. It consists of three terms covering about thirty-six weeks.

The departments of instruction in Brown University are the following: Philosophy; Greek Literature and History; Roman Literature and History; Indo-European Philology; Fine Arts; Biblical Literature and History; Rhetoric and Oratory; English Literature and Language; History; Social and Political Science; Political Economy; Germanic Languages and Literatures; Romance Languages and Literatures; Pure Mathematics; Drawing; Civil Engineering; Mechanical Engineering; Chemistry; Physics; Astronomy; Zoology, Geology and Anthropology; Comparative Anatomy; Botany; Military Science and Tactics; Books and Libraries.

The studies for undergraduates are partly required and partly elective. In the freshman year the studies are nearly all required, the main exception being that candidates for the degrees of Bachelor of Philosophy and Bachelor of Science have a choice of courses, according as they do or do not wish to pursue an ancient language. The required studies of the freshman year are selected for their disciplinary value, that the students may the more profitably pursue those of the subsequent years. Candidates for the degrees of Bachelor of Arts and Bachelor of Philosophy are, during the last three years, allowed large liberty in the choice of studies. Candidates for the degree of Bachelor of Science are more restricted in choice in order that they may master the branches necessary to a proper equipment in science; while to candi-

dates for the strictly professional degrees of Civil Engineer and Mechanical Engineer, of course no option is granted. The elective studies, which are numerous, are so placed in the curriculum as to give all the freedom of choice which the necessary limitations of the lecture-schedule admit. In arranging this schedule a number of parallel courses, each unitary and progressive and extending through the last three years, are made available. Every student is advised, in selecting his studies, to adopt, in the main, one of these courses ; and is warned against hap-hazard choice.

The University offers extensive facilities for graduate study, to which its own graduates and those of other colleges are alike welcome. Among these are not only the libraries and the laboratories of the University, its seminaries, its observatory and its various museums, which are all of a nature greatly to assist advanced study ; but also the varied industries of the city of Providence, which offer numerous and rare opportunities for special scientific investigation. A Graduate Students' Association, composed of the students carrying on advanced courses at the University, holds monthly meetings during the year, at which papers embodying the results of special investigations are read. Addresses are also made by members of the Faculty and others on topics connected with graduate work. The Philosophical Club, the Biological Club, the Art Club and the Biblical Research Club offer opportunities for the presentation and discussion of the results of investigations in their several fields. The following courses of instruction are at present available for graduate students : Philosophy ; the Classics ; Indo-European Philology ; the Fine Arts ; Biblical Literature and History ; Rhetoric and English ; History ; Social and Political Science, and Political Economy ; Modern Languages ; Pure and Applied Mathematics ; Chemistry ; Physics and Astronomy ; Comparative Anatomy, Geology, Anthropology and Botany ; Books and Libraries. From 1888 to 1896 inclusive the degree of Master of Arts has been conferred eighty-seven times and the degree of Doctor of Philosophy fourteen times, for work in the graduate department.

Among the most noteworthy features of the recent growth of the university has been the establishment of the Women's College. This institution was founded in 1892 to meet the wants of the woman students who wished to take advantage of the privileges granted by the corporation in opening all examinations, degrees and graduate courses to women. All instruction is given by members of the University faculty. The college has been successful and self-supporting from the start, the present number of students being one hundred and fifty-seven. These are in addition to the woman students of graduate rank, who have in the University exactly the same status and privileges as men.

The libraries of the University contain upwards of 90,000 volumes. They include the main library and the various department libraries. The principal collection is stored in a handsome and commodious fire proof building, and forms an excellent working library both for the ends of general culture, and for the more definite demands of University instruction. In this building, in a special room, is the famous Harris collection of American poetry, which numbers over 6,000 volumes. Here also is the unique Metcalf collection of 10,000 pamphlet sermons and addresses pertaining to the history of New England. The interest of the following funds, each of \$10,000, is rapidly building up collections of great value in the subjects to which they are devoted; the Olney fund, for botany; the Gammell fund, for American history, and the Diman fund, for European history. Besides these there is a library fund, the income of which is devoted to the general needs of the library. In Sayles Memorial Hall, in connection with the Germanic Institute, is placed the Conant German Seminary Library of over 6,000 choice volumes, devoted to the Ger-

man language, literature and history. In the same building is the Albert Harkness Classical Seminary Library, which is supplied with 1500 volumes important in the work of the seminary. A choice special library for the Romance Department has also been founded, which is likewise shelved in Sayles Memorial Hall. The Bancroft Memorial Library is based upon the collection left by the late professor of English. It is kept in the rooms of the English Department in University Hall. Most of the other departments of the University have special collections of books for use in connection with advanced laboratory work. The most important of these belong to the departments of Chemistry, Physics, Botany, Comparative Anatomy and Drawing. Besides these libraries owned by the University, five other important collections are practically at the service of the students: the Providence Public Library, the State Law Library, the Library of the Rhode Island Historical Society, the Library of the Providence Athenæum, and the Library of the Rhode Island Medical Society. These comprise, with the University Library, a quarter of a million volumes, exclusive of pamphlets and manuscripts. Thus the six combined collections afford library privileges such as can be found at few seats of learning in this country. The first three libraries named are entirely free, and the other two are readily available.

The Ladd Astronomical Observatory is supplied with a twelve-inch equatorial, and other equipments sufficient for illustrating the general courses in astronomy and for practical use in the applied courses. The Physical Department occupies Wilson Hall, a building recently constructed and fitted up for this purpose. It contains seven special laboratories, besides two rooms devoted to a laboratory for electrical engineering. The rooms of the Anatomical Department are situated in Rhode Island Hall. Here are well-equipped laboratories for the various courses. The Chemical Department occupies a building of its own, and provides laboratory accommodations for about two hundred students. The Botanical Laboratory fills the entire basement of Maxcy Hall. In connection with this department are the Olney Herbarium containing specimens from sixty thousand localities, and an important working library. The Psychological Laboratory occupies rooms in Wilson Hall. It possesses a variety of apparatus adapted to the illustration and demonstration of the main results of experimental work in psychology. The Department of Mechanical Engineering occupies the basement of Sayles' Memorial Hall, and also possesses three large and well-lighted drawing-rooms in University Hall. These are supplied with numerous valuable models and a working library.

The two important and carefully arranged collections, known as the Jenks' Museum of Zoology, and the Museum of Anthropology, are housed in Rhode Island Hall. The Museum of Classical Archæology is contained in Manning Hall. It consists of a collection of important plaster casts, from works of classical art. A large number of portraits are hung in Sayles' Memorial Hall. They illustrate the chief figures in Rhode Island history, and to some extent those of the country at large, and of Europe.

The care of the body is by no means neglected at Brown University, since the attainment of vigorous physical health is regarded by the authorities as among the most important aims of residence at college, necessary alike to high scholarship in college and to successful achievement in later life. To this end a rational and well-regulated system of physical training has been devised, and a due measure of such training is required of every under-graduate connected with the University, unless he is physically unable to engage in it. From November until April every student is required to exercise four hours a week in the Lyman Gymnasium. This is a

building of beautiful architectural design, recently constructed, and fully equipped with modern apparatus. Military drill, accompanied by the appropriate theoretical explanations, is also required of all Freshmen and of all special students of the first year, unless they are excused for physical disability or other sufficient cause.

No record of the University would be complete which should fail to mention certain names out of the long roll of teachers whose talents and devotion have built up the high tradition of professional excellence which is the inheritance of the new University. The list includes Benjamin Waterhouse, in Natural History; Benjamin West, in Astronomy; Tristram Burges, in Oratory; William Giles Goddard, in Philosophy; George Ide Chace, in the Sciences; Francis Wayland, in Philosophy; John Larkin Lincoln, in Latin; Albert Harkness, in Greek; Robinson Potter Dunn, in Rhetoric; Samuel Stillman Greene, in Pedagogy and Mathematics; J. Lewis Diman, in History; Ezekiel Gilman Robinson, in Philosophy; Eli Whitney Blake, in Physics.

But it is, finally, to the record of the men whom it has trained, that an institution of learning must turn for the fruits of its labors, and for the earnest of its future usefulness. The graduates of Brown University number 4,646, of whom, according to the 1896 Address Book, 2,174 are living. The University has much to be proud of, both in the high general average of its graduates, and also in the men of conspicuous ability among their number. To mention but a few from the various walks of life, Brown University has given to Education: Wilbur Fisk, the first president of Wesleyan University, and pioneer educator among American Methodists; Horace Mann, the creator of the present system of public-school education in the United States; Dr. Samuel G. Howe, "the Cadmus of the blind;" Barnas Sears, president of Newton Theological Institution and of Brown University, who, as secretary of the Peabody Education Fund, gave the South an educational new birth; Edwards A. Park, the leader of Congregationalist thought in America for half a century; James R. Boise, professor of Greek at Brown University, the University of Michigan, and the University of Chicago; Henry Simmons Frieze, professor of Latin at the University of Michigan; George Park Fisher, professor of Ecclesiastical History at Yale University, and historian; James B. Angell, diplomatist, president of the University of Michigan, and leader of educational thought in the West; James Ormsby Murray, dean of Princeton University. To Law: Samuel Eddy, statesman and chief justice of Rhode Island; Henry Wheaton, the foremost authority on International Law; Marcus Morton, father and son, the former governor, the latter chief justice of Massachusetts; Job and Thomas Durfee, father and son, chief justices of Rhode Island; Charles Smith Bradley, chief justice of Rhode Island, professor of Jurisprudence at Harvard; Thomas Allen Jenckes, leader of the Rhode Island Bar, statesman and originator of National civil-service reform; G. V. N. Lothrop, attorney-general of Michigan, minister to Russia; Isaac G. Wilson, chief justice of Illinois; Franklin J. Dickman, chief justice of Ohio; Benjamin Francis Thurston, the leading American patent lawyer of his time. To Medicine: Pardon Bowen, an early Rhode Island physician and investigator; Levi Wheaton, professor of the Theory and Practice of Medicine in Brown University; Elisha Bartlett, professor of Materia Medica and Medical Jurisprudence in the College of Physicians and Surgeons; William W. Keen, the first of living American surgeons. To Politics: James Fenner, United States senator, governor of Rhode Island; William Hunter, United States senator, minister to Brazil; James Tallmadge, Federal representative, lieutenant-governor of New York, president of the American Institute; Andrew Pickens, governor of South Carolina; William L. Marcy, United States senator from New York, Secretary of War and Secretary of State; John H.

Clifford, governor of Massachusetts; Lafayette S. Foster, president of the United States Senate; Henry Bowen Anthony, thrice elected president of the United States Senate; William Gaston, criminal lawyer, governor of Massachusetts; John M. Thayer, brevet major-general, United States senator, governor of Wyoming and Nebraska; Samuel S. Cox, Federal representative from New York, minister to Turkey; Thomas Ewing, chief justice of Kansas, brevet major-general, Federal representative from Ohio; Richard Olney, authority in railroad law, United States Attorney General, Secretary of State. To the ministry: Adoniram Judson, founder of Baptist missions in Burmah; M. A. De W. Howe, bishop of Central Pennsylvania; George M. Randall, missionary bishop of Colorado; James Petigru Boyce, founder of the Southern Baptist Theological Seminary; A. J. Gordon, pastor of the Clarendon Street Baptist Church, Boston. To engineering: Alexander Lyman Holley, authority in railway engineering, founder of the American Society of Mechanical Engineers; Robert H. Thurston, professor of mechanical engineering at Cornell University, author of important works on engineering; E. L. Corthell, chief assistant engineer in the construction of the Mississippi jetties, constructor of the St. Louis Merchants' Bridge; David L. Barnes, consulting engineer for the Baldwin-Westinghouse Company. To librarianship: Charles C. Jewett, librarian of the Smithsonian Institution, superintendent of the Boston Public Library; Reuben A. Guild, librarian of Brown University; R. B. Poole, librarian of the Young Men's Christian Association, New York city; William E. Foster, librarian of the Providence Public Library. To business: Nicholas Brown, Moses Brown Ives, John Carter Brown, William Goddard, members of the famous mercantile house of Brown & Ives; Samuel L. and William A. Crocker, pioneer copper manufacturers in America; Isaac Davis, bank president, railroad director, mayor of Worcester; Rowland Hazard, woollen manufacturer and writer on economics; N. P. Hill, originator of scientific silver mining in Colorado, United States senator; Charles L. Colby, president of the Chicago and Great Western and other railroad companies. To literature: Albert G. Greene, poet and founder of the Harris Collection of American Poetry; George D. Prentice, journalist and poet; John M. Mackie, biographer and historian; William M. Thayer, author of numerous popular juvenile books; Edward L. Pierce, biographer of Sumner; James De Mille, novelist; John Hay, poet and biographer of Lincoln; William Leete Stone, historian; Benjamin W. Steele, journalist; Sam Walter Foss, poet. To art: Augustus Hopkin, book-illustrator and novelist; Thomas Alexander Tefft, architect and monetarian; Marcus Waterman, painter, Boston; George Hitchcock, painter and writer on art, Holland; Walter Francis Brown, painter, Venice.

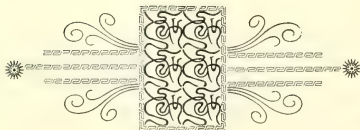
The foregoing brief list, though it might easily be extended to hundreds of names, especially in departments like education and the ministry, is, nevertheless, offered as representative of the men who have been winning distinction for themselves and honor for Brown University in every part of our country since first it became an independent nation.

FRIENDS' SCHOOL.

The Friends' school, of Providence, R. I., founded more than a century ago, stands on a hill in the midst of a beautiful park, three-fourths of a mile from the heart of the city, and overlooks nearly all of Rhode Island, a broad area of Massachusetts, and down the fair vista of Narragansett Bay. It was founded in 1784 by Moses Brown, one of the founders of Brown University, the Providence Athenæum, the Rhode Island Historical Society and other institutions. His son, Obadiah

Brown, bequeathed \$100,000 to it in 1822, which is said to have been \$50,000 more than any school or college had then received, in one sum, in this country. The money was produced in the first manufacture of pure cotton goods in America, in company with Samuel Slater, at Pawtucket.

The school is thorough in all of its appointments, and is one of the best equipped private schools in the country. It is well graded, and has twenty teachers of large experience in its force. It fits for any higher grade school or university, and does a large work in general education besides. It has a library of more than seven thousand volumes, an excellent chemical laboratory, astronomical observatory, mineral cabinet and a fine studio with a wood-carving department. It is ventilated with the most approved forced-air system, and lighted everywhere with the best known electric method. The rooms are made attractive by fine pictures, distributed everywhere, contributing constantly to the unconscious education of its pupils. The athletic record of the school is creditable. It secured a diploma and medal for excellence in wood-carving at the Columbian Exposition at Chicago in 1893. It is abreast of modern progressive education, advancing with increasing vigor upon its second century of achievement. Its art treasures contain the finest bust of John Bright and the best portrait of Whittier. George William Curtis said of it: "The school is famous for the excellence of its instruction and the serene influence of its discipline."



CHAPTER CLXVI. INSURANCE IN RHODE ISLAND.

BY E. L. WATSON.



IT is only within the last forty years that an accurate record has been kept of the insurance business conducted in this state, and information concerning it prior to 1859 must necessarily be gathered from sources not easily accessible. Doubtless much that would be interesting is forever lost by the destruction of old papers and corporation records, and but few attempts have been made to collect those which still remain in existence.

The business, which a century ago was of comparatively small moment, has now grown to be a necessity of commerce and credit. It is hardly necessary to refer to the extent and magnitude of the commercial transactions of this country on which insurance depends, and which in turn are so generally dependent upon insurance. There can be no doubt, however, that, without the facility of obtaining sound insurance, the immense volume of business daily transacted would be seriously curtailed and many enterprises, now readily undertaken, would never be attempted. Certainly the credits which are at present extended to business men would not be given if their safety were to be dependent on freedom from fire or marine disaster.

The necessity for some sort of insurance has long been recognized, and it, no doubt, originated in the practice of merchants subscribing or underwriting certain amounts which they were willing to insure against sea perils on each other's ventures. It was not until the year 1666, however, the date of the great fire in London, that much attention was given to insurance against fire.

The first records of insurance in Rhode Island seem to deal entirely with individual underwriting, and it was not until the close of the eighteenth century that the business seems to have been considered of sufficient importance to warrant the formation of corporate bodies for its transaction.

From papers on file at the rooms of the Rhode Island Historical Society it appears that "a system of insurance policies highly appreciated by the merchants of this early period seems to have been instituted by Stephen Hopkins as early as 1756," while other "fillers of policies" were John Gerrish and Joseph Lawrence, and "the inventory of Thomas Manchester, who died in August, 1756, indicates that private underwriters had carried on business in the town of Providence and that claims for marine insurance existed."

The advertisement of Henry Paget in the *Providence Gazette*, November 20, 1762, shows that he conducted an insurance office at that time, and in this and previous issues of the same newspaper the publisher advertised for sale, among a great variety of books and stationery, blank policies of insurance.

Nearly twelve years later appears the advertisement of Joseph Lawrence, dated February 11, 1774, reading as follows:

INSURANCE OFFICE.—Notice is hereby given that an office for insuring houses, vessels and merchandise, is this day opened and kept at the dwelling of Mrs. Jemima Field, next door to Doctor Henry Sterling, in Water street. Attendance will be given at said office between the hours of ten and twelve, and two and four on each day of the week, the first excepted.

In the *Providence Gazette* of December 7, 1782, a notice appears stating that "The Insurance Office is removed from the house of John Jenckes, Esq., to a room over the Market House," but the name of the person who conducted this office is not mentioned.

Various advertisements of Boston underwriters appear from time to time in the early newspapers, and in 1784 the people of Providence were "invited to become proprietors in an insurance office, against fire," by sending their names to the tavern of Mr. John Marston, State street, Boston.

Samuel Sanford, of Newport, opened an office at the foot of the Parade, during the summer of the same year, where policies of insurance were "underwrote" at the most moderate premiums, by a company of gentlemen, whose names were inserted in each policy. These gentlemen appear to have entrusted to Mr. Sanford the collection of the premiums, and the payment of losses as well.

While the system of insurance by private individuals was doubtless satisfactory in most cases, complaints were made at times that the underwriters had failed to meet their obligations, but, as there was no better insurance to be had by the merchants of those days, the offices were, doubtless, well patronized.

In the *Gazette* of July 12, 1794, appears the following advertisement :

"INSURANCE OFFICE.

"John Mason takes this method to inform the public in general that he has opened an insurance office in a room in the Coffee House, upon such principles and under such regulations as were established by the principal merchants of this Town, at a regular meeting, which are nearly similar to those established in Boston.

"He flatters himself that all who may apply for Insurance, will experience such Attention and Punctuality as will afford entire satisfaction.

"The office will be open from Nine o'clock A. M. to One P. M., and from Four to Six P. M., every day in the week, Sundays excepted.

"The smallest Favour in this Line of Business will be gratefully acknowledged."

The policies issued, from this and the other offices of a like nature, seem to have been what are generally known as "Lloyd's policies," and, indeed, the first place of meeting, in the case of John Mason's combination, is similar to that of an earlier association, formed in London in the seventeenth century, whose usual place of meeting was at the Lloyds' coffee house. This combination was soon known as "Lloyds'," and the name has since been generally applied to any combination of individual underwriters. Their methods were not materially different from the Lloyds' of the present day, each individual subscribing his name, and the amount to be insured by him, at the end of the policy-conditions.

It was possible for an individual to have far more at risk in this way, than he could safely afford to lose, but so little can be learned regarding fire insurance in those days, that it seems probable that the risks assumed were sea perils chiefly, and that their funds were not seriously exposed to the dangers of a conflagration.

In December of the same year, it would seem that Joseph Lawrence, who had been so long engaged in business in Providence, must have felt the competition of

John Mason's office, for in the issues of December 20, 1794, and January 3, 1795, the following advertisement was published in the *Gazette*:

"INSURANCE OFFICE.

"The subscriber who has for upwards of thirty years kept an Insurance office, in the town of Providence, informs the public that he still continues in said line and has opened his office in Mr. McLane's coffee house, where constant attendance will be given to wait on all who may favour him with their business; for which his demand is one single dollar for a policy and recording, and no other fees of office, whereby the insurer saves one-fortieth part of his premium and has the satisfaction of retaining the property in his own hands on interest.

"The insured, in case of loss, suffers no deduction from the sum insured; but may rest satisfied that his property will be placed in such hands as will pay the whole amount insured agreeable to the policy.

"JOSEPH LAWRENCE."

These two gentlemen, and presumably the others mentioned, seem to have conducted their business in those days in much the same manner as the insurance broker of the present time, excepting that now the broker usually obtains for his customer the policy of a company, while at that time he was obliged to secure the subscriptions of individuals to the contract.

At least one of the policies issued at the office of John Mason is still in existence, and many of the underwriters thereupon were afterward subscribers to the capital stock of the first insurance company which was regularly incorporated in Providence.

This was the Providence Insurance Company, and it was doubtless established in the office of John Mason, who became its first president. The first secretary was William Hail Mason. The date of incorporation was February 3, 1799, and the records indicate that they exposed their capital of \$150,000 at the start to the risks of marine insurance only.

One of the original articles of agreement appearing on the records of the company was a prohibition of insurance of vessels (or property laden therein) which were engaged in the slave trade, thus showing a conservatism which seems not to have obtained with another company, organized about a year later, and insuring a vessel "from Rhode Island waters to the coast of Africa and return, as far as the Havanna," at a rate of twenty per cent. for the voyage.

In the same year the Newport Insurance Company was incorporated, and it appears to have done for a while a fair amount of business. It probably did not prove profitable after the first few years, as the directors decided to reduce its capital in February, 1809, to the extent of \$50,000.

An attempt was made in the summer of the year 1796 to form a fire insurance company on the mutual plan, but it apparently met with but little encouragement, and it is not until the year 1800 that a successful movement was made to get a company of this sort in operation.

The *Providence Gazette* of March 29, 1800, has an advertisement quaintly worded, and occupying nearly half a column, proposing the formation of the Providence Mutual Insurance Fire Company.

It was desired that insurance upon one hundred houses should be subscribed for, each subscriber to pay twenty-five cents for every one hundred dollars subscribed.

The subscription book was opened at the office of Joseph Lawrence, and the undertaking appears to have met with the approval of the citizens, for in November of the same year the Providence Mutual Fire Insurance Company announced that it would be open for business on the 17th day of the month, and would receive applications from any part of the state.

This was the first company to issue *fire* policies in Rhode Island, and its record has always been an honorable one. Its operations have been of a varied nature, but at present they are confined to insuring risks which are not of a specially hazardous class.

Somewhat earlier in the same year the Washington Insurance Company commenced business in Providence, the record of the first meeting bearing the date of January 10, 1800.

It was the intention of those organizing this company to have a capital of \$100,000, but they were obliged to increase it to \$110,000, in order to give every one who desired it, an opportunity to share in the profits, which appear to have been large for the first dozen years of the company's existence. Perhaps this was in some measure due to the inscription on the front cover of the record book, "Divine Providence superintends." Following the lead of the Providence Insurance Company, the directors promptly voted that they would not insure on vessels engaged in the slave trade.

On the records under date of May 24, 1803, appears the following :

"Voted. That the directors of this company meet once in every week on Tuesday at six o'clock P. M., and in case of the absence of any member longer than ten minutes after six, they shall pay for the use of the Board of Directors, a quart of Porter, unless they can make an excuse to the satisfaction of a majority of the Board. N. B. The preceding vote was agreed to several days past, but not recorded till the above meeting, when there were absent Messrs. Aborn and Charles Sheldon."

The first officers of the company were Richard Jackson, president, and George Benson, secretary. These gentlemen seem to have inaugurated the agency system by the appointment of Messrs. Taber and Tripp, agents at New London, in October, 1803. The commission allowed to these agents was two and one-half per cent. of the premiums obtained, but this was afterward increased by the addition of one dollar for each policy issued.

In the year 1800 there was also incorporated, with a capital of \$55,000—payable in instalments—the Bristol Insurance Company, at Bristol, of which Captain James D'Wolf was president and Gustavus Baylies, secretary. The business was solely marine, but it probably did not prove profitable, as the company's existence was very short. Copies of the first forty-five policies issued are still preserved—apparently the only policies written. Of these, nineteen insured vessels, bound to the coast of Africa and return to "The Havanna." The high rates charged for these policies indicate that the vessels must have been engaged in a profitable business, otherwise they could not have paid such heavy premiums. Probably they were in the slave trade. The records do not show positively when this company discontinued business, but apparently its affairs were wound up in January, 1803. Its president was a man of much prominence in the affairs of the state, and he was also one of the incorporators of the Newport Insurance Company, of which mention has been made.

In the early part of the year 1800, some of the merchants of Warren, also realizing the importance of protecting their shipping interests, organized the Warren Insurance Company. Very little can be learned concerning its business operations, but it seems to have been in existence in 1844, for in that year a petition was made to the legislature for exemption from taxation, which was granted. It is probable that the business of the company at that time was not of great consequence.

No more companies were chartered until October, 1803, when the Rhode Island Insurance Company, of Newport, was started. One provision of the charter was that \$60,000 of the capital of \$80,000 should be invested in the Newport Bank, an insti-

tution chartered in the same year. Samuel Vernon was the first president of this company, but records of its transactions are wanting.

In the following year the Hope Insurance Company, of Providence, was chartered, with a capital of \$60,000, and in 1805, the Mount Hope, of Bristol, started, with \$50,000 capital. The affairs of the latter were directed, in part, by the same parties who had, in 1800, incorporated the Bristol Insurance Company. The Mount Hope, in 1835, was in the hands of William Frederic D'Wolf, trustee, who probably brought its operations to a close.

All of these companies appear to have done a marine business only, but in 1807 a charter was granted to the Marine Insurance Company of Providence, authorizing it to take both fire and marine risks, in fact, to cover any legal subject of insurance. This company was dissolved in 1821, and a new company of the same name was incorporated, with a capital of \$50,000.

In the same year—1807—another company called the Union, was chartered by citizens of Warren with an authorized capital of \$40,000.

The choice of names for insurance companies seems to have been much restricted, for we find that in 1811 another "Marine" was chartered in Newport, which was authorized to insure lives, houses, vessels, and all other legal subjects of insurance. A few years later, in 1815, still another "Marine Insurance Company, of Newport," was chartered, though with different incorporators, indicating that the life of the company chartered in 1811 was but a short one.

Few of the companies incorporated previous to the War of 1812 appear to have survived the perils of the times, but with returning peace there came a revival of commerce, and in 1815 four new companies thought they saw a chance for profit in underwriting. These were the Peace, of Providence; Union, of Providence; Commercial, of Providence; and Marine, of Newport.

In the succeeding years up to 1821 there was, undoubtedly, considerable commercial activity, and one of its results was the formation of nine companies. These were the Eagle, of Providence, with a capital of only \$30,000, chartered in 1817; Columbian Fire and Providence Fire, of Providence, Ocean, of Newport, Bristol Marine, of Bristol, and Hopkinton Horse Insurance Company, of Hopkinton, all chartered in 1818; Kent Horse Insurance Company, of Coventry, in 1819; and in 1821, the Marine Insurance Company, of Providence.

During the same active period the Providence and the Washington offices decided to consolidate under the name of Providence-Washington Insurance Company, with a capital stock of \$132,000, and this action was practically completed in 1817, although a new charter was not apparently considered necessary until 1820.

Previous to 1817 these two companies had transacted only a marine business, and it was upon the petition of some of the directors of the old Providence office that a charter was granted in 1818 to the Providence Fire Insurance Company. This company seems never to have organized, and the directors of the Providence-Washington, soon deciding that the charters of the two companies were sufficiently broad in scope to warrant their writing fire as well as marine risks, began to issue fire insurance policies, and the office has continued to insure both classes of business up to the present time.

Curious among the companies organized at this period were those which undertook the insurance of horses. Records of the business which they transacted are not accessible, but copies of their charters are in existence, and these indicate to some extent their methods. The protection granted was against horse-thieves, and the territory of the Hopkinton Company was within a radius of ten miles of Hopkinton

city, so-called, while the operations of the Kent extended all over Kent county. All horses insured by these companies were branded, and their descriptions registered. In case of loss, it was provided that immediate notice should be given to the directors, who were thereupon bound to order out as many riders as might be thought proper. If the horse was not recovered, two-thirds of the appraised value of the animal was to be paid. A pleasant provision of these charters was to the effect that, upon conviction of the thief, the fine which was paid should go to the company insuring the horse.

At this time the operations of the Providence Mutual seem to have been attended with great success, as was shown by their announcement in the *Providence Gazette* in January, 1820, that they had appointed agents in the towns of Newport, Bristol, Warren, Taunton, New Bedford and Nantucket, coupled with the statement that the company had not sustained a loss for nearly six years.

During the succeeding ten years only two companies were chartered, the Marine, of Providence, in 1821, to do fire and marine business, and the Franklin Fire, of Providence, for fire only, in 1826.

At this time, however, the agency system began to be extended, and companies organized outside of the state sought Rhode Island business, which has never ceased to be attractive to them.

The Ætna Insurance Company, of Hartford, which commenced business in 1819, was, probably, the first company to establish an agency in Providence, and from this beginning the system has spread, and the companies doing a purely local business are few in number.

Before this, however, as early as the year 1805, the Phoenix Assurance Company, of London, had established a system of agencies in America, among them being one at Newport, conducted by Messrs. Lopez and Dexter.

These gentlemen were appointed in 1808, but there was, probably, not enough business to afford them a livelihood, and their chief occupation was that of merchants rather than underwriters.

The experience of the Phoenix was not favorable, and they withdrew from America, after a few years, not returning for more than sixty years after.

The Ætna's agent, Mr. Stephen Tillinghast, was, therefore, probably the only representative of other than local companies. The office was at No. 4 Market Square, in the rooms of the Marine Insurance Company, of which Mr. Tillinghast was secretary.

There have been but few changes in the Ætna's agents. John H. Ormsbee followed Stephen Tillinghast. At his death his son, Henry H. Ormsbee, was appointed, and he relinquished the agency to Samuel Shove in 1864. When Mr. Shove retired from business, in 1893, the representation of the company was given to the firm of Starkweather & Shepley, with whom it still remains.

The Hartford Fire Insurance Company followed the Ætna's example, and in 1835 appointed a bright young lawyer, Allen O. Peck, its agent. The advertisement in the newspapers of the day set forth the fact, that although they had been doing business over twenty years, all losses, during that period, had been settled without compelling the insured, in any instance, to resort to a court of justice.

Mr. Peck resigned, in 1837, to become secretary of the American Insurance Company, of Providence, and the Hartford selected Jas. Y. Smith to succeed him. It was afterward represented by Job Andrews, appointed in 1852, and by Samuel Shove in 1858, and with the Ætna it went to the agency of Starkweather & Shepley, in 1893.

In the year 1831 there was incorporated, the American Insurance Company, of Providence, with a capital of \$150,000. Henry P. Franklin was its first president, and Gideon Thornton the first secretary. Mr. Thornton was succeeded, in 1837, by Allen O. Peck, who was, in 1846, elected president. The company conducted a successful business for many years, and found it advisable to increase the capital, in 1869, to \$200,000.

The Chicago fire, in 1871, which ruined so many insurance companies, gave this one a blow from which it never recovered, and its affairs were closed up soon after this time.

The Commercial Insurance Company, of Newport, was chartered in 1832, but records of its business are not to be found, and, as was the case with so many others, its business operations were probably not extensive.

The formation of the Manufacturers' Mutual Fire Insurance Company, in 1835, was an event of great importance in the insurance history of Rhode Island. From this small beginning, has grown a system of mill insurance which, for many years, was unrivalled.

In this year, Zachariah Allen, of Providence, a man of high scientific attainments, engaged in the business of cotton manufacturing; fitted up the Allendale Cotton Mill, at Allendale, with all the appliances for extinguishing fire which were known at that time, besides making many improvements in construction and in the arrangements for heating the mill. It has been stated that Mr. Allen placed in his mill the first rotary fire pump and the first copper-riveted leather hose ever seen in a New England textile manufactory, that he removed all stoves from the mill, shut off the picker-house by the erection of a good brick wall, and even went so far as to lay the shingles of the roof in mortar. While this last improvement was, doubtless of value in reducing the fire hazard, it had none the less value in maintaining more equable conditions of temperature in the attic, and some of those same shingles are said to have been doing service on that roof fifty years later, indicating that this form of construction was economical as well as safe.

Having completed these improvements, he requested a concession in rate from the stock insurance companies in consideration of the large expenditure which he had made and of the especial care which he took of his property.

The managers of the stock companies of the present day have evidently gained experience from the mistakes of their predecessors, for, incredible as it may seem, Mr. Allen was met with the reply that "a cotton mill is a cotton mill; the rate is two and one-half per cent." "Then," said Mr. Allen, "the cotton mills will insure themselves and get the benefit of their own care and judgment in preventing fires."

He, soon after, called a meeting of mill-owners, and this led to the formation of the Manufacturers' Mutual Fire Insurance Company, of which Amasa Mason was elected president, and John H. Ormsbee, the agent of the *Ætna*, secretary. Mr. Ormsbee succeeded to the presidency of the company in 1851, and held the office until his death in 1860, when his son, Henry H. Ormsbee, became secretary, was elected president in 1862, and continued in office until his death, which occurred in December, 1895.

As might have been expected, the first policy written by this company covered the Allendale Mill, and the rate was lower than that charged by the stock companies.

The business of the first year was a success, and a dividend of fifty per cent. was declared on expiring policies, but the second year brought losses and an assess-

ment on the policy-holders. It is stated by Edward Atkinson, president of the Boston Manufacturers' Mutual Fire Insurance Company, that there has been no occasion since that time for an assessment by any of the companies forming the manufacturers' mutual system.

In 1848 Mr. Allen was instrumental in the organization of the Rhode Island Mutual Fire Insurance Company of Providence. He was the first president, with J. L. Hughes as secretary. In 1850, Edward E. Manton was elected secretary, and in 1855 he was made president. In 1857, Mr. Manton was called to Boston to become president of the Boston Manufacturers' Mutual Fire Insurance Company, which had been organized in 1850. Mr. Allen took great interest in the formation of this company, which, under the management of Mr. Manton, soon became the leader of the "mill mutuals."

At first the work was not fully comprehended, and when the officers of one of these companies were asked to write a policy, the amount of which exceeded \$10,000 on a single hazard, it seemed a great risk. To-day, however, policies are written by individual companies ranging in amount from \$30,000 to \$250,000 upon one hazard.

The formation of these companies was followed by the organization of the Firemen's Mutual Fire Insurance Company in 1854, the State Mutual in 1855, the Blackstone in 1868, the Mechanics' in 1871, the What Cheer in 1873, the Merchants' and the Enterprise in 1874, the Hope in 1875, the American in 1877 and the Mercantile in 1884.

All of these companies are in active and successful existence at the present time, and the system has extended into other cities besides Providence and Boston.

The object of the system is rather the prevention of fires than the payment of losses, and insurance companies of this class have formed an association with the object of making uniform the whole work of inspection, the demand for safeguards and the means for preventing losses.

In this way they have gathered much information regarding construction, the proper management of steam appliances, the safe adjustment of heating and lighting apparatus and many other matters pertaining to the practical conduct of their business, not the least of which are the many and varied inventions for the prompt extinguishment of fires.

Other "mill mutuals" have been chartered by the legislature, from time to time, but apparently those above mentioned are the only ones which have engaged in business.

In unhappy contrast to the creditable achievements of these Mutual Fire Insurance Companies is the record of Rhode Island Life Insurance Companies.

In this respect the state seems to have been unfortunate, no successful life-insurance company ever having been started.

The Providence Insurance Company, incorporated in 1799, was authorized to insure lives, but it never made use of the opportunity, and the Marine, of Newport, incorporated in 1811, had a similar privilege, which was not used.

The Enterprise Loan and Insurance Company was chartered in 1836, and in 1837 the same parties, who had obtained this charter, secured one for the Life and Trust Company. It is stated that these companies never commenced business operations, and the same may be said of the American Mutual Life and the Rhode Island Mutual Life, chartered in 1847 and 1849, respectively.

The Economical Mutual Life Insurance Company commenced business in 1866, with a capital of \$100,000. This was at a time when inflation had reached its height. Almost every industrial department was flourishing, and companies and

their agents found willing investors in a fund to protect their families against the fatal enemy of the household—death.

In 1860, the number of life insurance companies operating in the state of Massachusetts was nineteen, but in 1869, this number had increased to sixty-four, and the offices were run on a high-pressure system. Bad management and unnecessarily heavy outlays were alike concealed by the great volume of new business which every company was able to report at the end of each year, and suggestions of re-action and possible collapse were unheeded by those who were reaping the golden harvest.

Born under such conditions, it is perhaps not strange that the struggle for existence was a short one for the Economical, and in 1873 it re-insured its business in the Republic Life Insurance Company, of Chicago, Ill. This action, however, did not prove to be of much benefit to the policy-holders, for the Republic failed in the year 1875.

The last local life insurance enterprise was the organization, in 1892, of the Columbia Life Assurance Company, of Providence, by E. A. Dunham and H. L. Trafford, who were at that time the Rhode Island general agents of the Equitable Life Insurance Company, of New York. This company had a capital of \$100,000, and undertook to do business on the level premium plan, but it was not a success. In March, 1893, Mr. Dunham, who had been elected president of the Columbia, purchased a controlling interest in the Commercial Alliance Life Insurance Company, of New York, and became its president. In January, 1894, the business of the Providence Company was discontinued, and it was turned over to the Commercial Alliance. The latter failed in October, 1894, and the Rhode Island Insurance department caused a complaint to be filed with the Supreme Court of the state for the annulment of the charter of the company.

While the life insurance and mill mutual companies were working out failure and success, we find that the incorporation of new stock companies for the transaction of fire and marine insurance did not cease entirely, though it was not until the year 1848 that any considerable activity was shown. In this year the Roger Williams Insurance Company commenced business, as did also the Pawtucket Mutual Insurance Company.

The "Roger Williams" had a capital of \$100,000, and it transacted both fire and marine business with good success until 1871, when it was badly crippled by the Chicago fire. The officers arranged with its creditors, upon a basis intended to be equitable, and again began business, but the company was finally obliged to give up the struggle in 1879, re-insuring its fire business in the Home Insurance Company, of New York, and carrying the marine risks until their expiration.

The "Pawtucket Mutual" is still in active and successful operation. It has never ventured in its operations far from home, and it has an excellent reputation for conservatism and honest dealing with its patrons.

The Farmers' Mutual Fire Insurance Company, of East Greenwich, was incorporated in 1851. It did a small business until 1869, and in 1874 the name was changed to the American Mutual Fire and Steam Boiler Insurance Company. This name was again changed in 1877 to American Mutual Fire Insurance Company, of which further mention is made in this article.

The Merchants' Insurance Company, of Providence, was the next stock insurance company organized, and its career has been one of quiet success. It was incorporated in 1851 by Captain William Comstock and Walter Paine, and it did principally a marine business until the Civil War. It now confines its operations to fire insurance. Captain Comstock would never allow the policies of the company to

cover a steamboat, having been at one time in command of such vessels, and knowing their dangers full well. It is interesting to note that policy No. 10, insuring E. S. Jaffray & Co., of New York, one of the first fire policies issued by the "Merchants," was continued by renewals and remained in force until the dissolution of that firm in 1895.

The Atlantic Fire and Marine Insurance Company was for many years a well-known Providence institution. It was organized in 1852 with a capital of \$150,000, which was afterward increased to \$200,000. Although obliged to make a compromise settlement with its creditors at the time of the Chicago fire, it continued business, the stockholders having promptly paid in \$150,000 to enable the company to overcome its difficulties. In 1889, soon after the death of Mr. J. S. Parish, who had been its president for many years, its policies were re-insured in the National Fire Insurance Company, of Hartford, and the company ceased to take risks.

In 1852 there was also chartered the Commercial Mutual Insurance Company, which in 1858 was incorporated as a stock company, with a capital of \$100,000, but in less than ten years after the latter date, this company retired from the field.

Two excellent mutual companies were chartered in 1854, the Firemen's and the Franklin. They are still doing business, the former insuring mills, and the latter confining its business chiefly to dwelling-house risks in Providence and its immediate vicinity.

A notably unsuccessful venture was the organization in the following year of the Trident Mutual, of Providence. Francis E. Hoppin, when appointed receiver of this company in 1859, found but little of its much-advertised assets.

The State Mutual and the Mechanics' Mutual, however, which also were organized in 1855, still conduct a successful business, and they are now a part of the factory mutual system.

The Slater Mutual which was incorporated in 1856 soon went into the hands of a receiver, Caleb Farnum, who worked faithfully to put the affairs of the concern in order, as indicated by the very favorable comments upon his management in the first publications of the insurance commissioners. In 1875, the charter of this company was amended, and it became the property of the Hope Mutual Fire Insurance Company.

Two other unfortunate institutions were incorporated in the same year. One, the Gaspee Fire and Marine, organized by the friends of Col. William P. Blodget, who became its first president, had a capital of \$100,000, but in 1867 it wound up its affairs honorably and re-insured its risks. The other, the Butler Mutual Fire, continued until 1878, when it cancelled all outstanding risks and abandoned the business.

Only one company was chartered in the year 1857, a year not favorable for financial enterprises of any kind. This was the Woonsocket Mutual Fire Insurance Company of Woonsocket. Records of any business done by it are wanting, and as it is not mentioned by the insurance commissioners in their report for the year 1859, it is probable that it met an early death, if indeed it was ever organized.

In 1858, charters were granted to the Hope, of Providence, the Aquidneck Mutual Fire of Portsmouth, and the National Mutual Fire of Providence.

The Aquidneck appears to have done no business, and the National was obliged to make an assessment in 1863. Shortly after this, the company ceased insuring, the insurance commissioners stating that the community were not disposed to pay nearly or quite stock rates and at the same time be liable to assessment for losses. In 1864, their charter was amended and was used by the City Insurance Company which was incorporated with \$50,000 capital.

The Hope, a stock company with \$150,000 capital, was more successful and did a general business until it met with disaster in 1871 at Chicago, which forced its retirement.

Previous to 1859, the state had exercised very little supervision over insurance corporations, except to tax them, but in this year the insurance commissioners' office was established and authority was given the commissioners to examine any company whose solvency was doubtful. At first there were three commissioners: John R. Bartlett, William R. Watson and Samuel A. Parker, but the number was soon reduced to one and has so remained. The office is of undoubted value to the citizens of the state, and it is, at present, admirably managed.

Two years before this, the mutual department of the Providence Fire and Marine Insurance Company had been incorporated, with John B. Pierce, president, and Charles G. Taft, secretary; but, according to the report of the insurance commissioner, it was never in a sound, healthy condition, and it was wound up in 1865.

During the years 1858 and 1859, five new companies were chartered; of these the What Cheer Fire and Marine, Newport Fire and Marine, and the Traders' and Mechanics' Mutual Fire apparently made no use of their charters at that time, but the Equitable Fire and Marine and Narragansett Fire and Marine both immediately commenced active operations.

The Narragansett started with a larger capital than that of any insurance company ever chartered by the state of Rhode Island. They organized by the choice for president, of a veteran in the insurance business in Rhode Island, Allen O. Peck. With a good name, officers of excellent reputation and wide experience, and also a large capital, they seemed destined to be very successful, but they were unfortunate from the start. Many of their investments proved to be unsatisfactory, and their agency system was not properly organized. Having lost considerable money in Chicago previous to the great fire, they had closed their agency at that point, and they were not therefore heavily involved in the conflagration. They did not, however, escape so easily in Boston in the following year, and in consequence of losses at that time, they were obliged to reduce the capital, finally giving up business and re-insuring their risks in the Commercial Union Assurance Company of London in 1874.

In agreeable contrast to the record of this unfortunate company stands that of the Equitable. It was incorporated in May, 1859, organized September 3, 1860, and was established in its office on the 1st of December, 1860. Ex-Governor Thomas G. Turner was for many years its president, and he was succeeded by Frederick W. Arnold, its present chief executive. The capital at first was \$100,000, which was increased in 1866 to \$200,000 and in 1881 to \$300,000. The business has been extended over a large part of the United States, and its able and conservative management has made it a company alike popular with its stockholders and the general public.

The next company to seek the profits supposed to lie in the insurance field was the City, which took up the charter of the National Mutual Fire Insurance Company in 1864. Hon. William R. Watson, a former insurance commissioner, was chosen for the first president. The business transacted was never a large one, but the company was not seriously involved in the great fires of Chicago and Boston, so that it seems almost strange to find the stockholders deciding in 1880 to close its affairs.

Re-insurance of all outstanding risks was affected January 15th in the Imperial and Northern Assurance Companies of London. The stockholders received a favorable return for their investment, but they gave up a plant which might have been cultivated to good advantage.

Probably the most successful in Rhode Island, in its particular class, is the Union Mutual Fire Insurance Company of Providence, organized in 1863, for the insurance of dwellings and their contents exclusively. The company has never made an assessment upon its policy-holders, and it now returns large dividends upon expiring policies.

In 1865 there was chartered the Tiverton and Little Compton Mutual Fire Insurance Company, of Tiverton. Business operations were commenced in the following year, and they have been quietly continued in an out-of-the-way corner of the state, ever since. Their methods vary somewhat from the commonly adopted practices of the present day, but the company appears to have a fair measure of success.

In the same year there were chartered two other companies, the Travelers' and the National Railroad Mutual Fire, neither of which appears to have done much business; the name of the latter was changed in 1874 to Enterprise Mutual Fire Insurance Company, and under that title it continues as a "mill mutual."

Another "mill mutual" was organized in Providence in 1868. This was the Blackstone, and it has grown under good management to be an institution of prominence in the state.

The shareholders of the stock companies in Rhode Island seem never to have realized the necessity of accumulating large surplus funds to meet such disasters as occurred in Chicago in 1871 and in Boston in 1872. As a result of paying out, in dividends, a large part of the profits, as fast as made, the Providence companies were not then in good condition to face serious trouble.

The combined capital invested in the business, in 1871, amounted to \$1,900,000, and of this, one-half was entirely swept away, five companies, the American, Atlantic, Hope, Providence Washington and Roger Williams, losing practically all of their assets.

The other stock companies then in existence were the City, Equitable, Merchants' and Narragansett.

In November, 1891, the stockholders of the ruined American obtained the unused charter of the Newport Fire and Marine Insurance Company of Newport, and, having paid in a cash capital of \$200,000, commenced business. During the year 1872 the Atlantic and the Providence Washington, having called in fresh capital and met their obligations in Chicago, were also doing business when all were called upon to face the calamity which so seriously damaged the city of Boston and brought sorrow to the owners of insurance stock.

The amount paid out in these two great fires, by Providence companies, was more than \$2,000,000, and the effect on stock insurance development was serious. No new stock companies have been formed since 1872, and the number in existence has dwindled to three, with a total capital invested of \$900,000. These are the Equitable, Merchants' and Providence-Washington, all of which are now in prosperous condition.

While capital has been timid, the organization of mutual companies has gone steadily on. These have met with varying success, and, with a few exceptions, have sought their business from fields near home.

The American, Enterprise, Hope, Merchants', Mercantile and What Cheer joined the associated factory mutuals, and they are in successful operation at present. The Bristol Mutual Fire, of Bristol, was in existence and did a limited business from 1875 to 1881.

In July, 1875, the American Mutual Fire and Steam Boiler Insurance Company began insuring against steam boiler explosions in a separate department from its fire

insurance. The name was changed in 1877 to Providence Mutual Steam Boiler Insurance Company, and a separate charter was furnished to the American Mutual Fire Insurance Company in the same year.

The Rhode Island Live Stock Insurance Company was incorporated in 1888. There is a wide field for companies of this class, and at present there is but little competition in it. There seems no reason why a well-managed company should not meet with success in this line of the business.

It has become necessary for underwriters to associate, in order to prevent injurious practices from creeping into the business. Associations with this object had doubtless existed in this state prior to 1835, and since that time various organizations have been formed, their principal object being the maintenance of adequate rates. The present one established for this purpose, the Insurance Association of Providence, was first formed in 1883, and though not as strong as at some periods of its existence, it is still doing effective work.

Partly owing to weakness on the part of underwriters' associations throughout the country, and partly by reason of an abnormal increase of fire losses all over the United States, the years 1891, 1892 and 1893 saw the failure and retirement of many companies. All of the companies of this state were able to continue business, but the actual withdrawal of a large amount of insurance capital from the commercial centres of the country seemed almost to necessitate the formation of many new organizations of individual underwriters or "Lloyds," and mutual companies. Dishonest men were not slow to see the advantage of gathering premiums, without much regard for the losses, and the result has already begun to be felt by men who undertook mutual insurance in good faith.

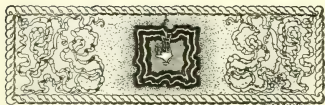
No "Lloyds" were formed in Rhode Island at this time, but numerous mutual companies were chartered, beginning in 1892 with the Atlantic, which was followed by the Pacific in the same year. In 1894, however, came the greater number, the names selected by the projectors of these offices being as follows: Aquidneck, Citizens', Cranston, Commercial, Elmwood, Globe, Lincoln, National, New England, Narragansett, Phoenix and United Mutual Fire Insurance Companies.

Six of these companies and the two incorporated by the legislature of 1892 complied with the requirements of their charters during 1894, and filed statements showing their standing, December 31, 1894. These were the Aquidneck, of Newport, Atlantic, Citizens', Commercial, Narragansett, Pacific, Security and United, of Providence. These were followed in 1895 by the Home, of Pawtucket, and the Industrial, of Providence. Honest and intelligent management may bring success to some, perhaps to all of these companies, but up to the present time few of them have succeeded in establishing themselves firmly in the confidence of the community.

An event of considerable public importance was the formation, in 1875, of the Providence Protective Department. This is a voluntary association of underwriters for the maintenance of a salvage corps, and it has saved many thousands of dollars to the citizens of Providence. Two companies are now maintained, and, having the assistance and hearty co-operation of the city officials, they are practically a portion of the city fire department, though still supported by insurance funds.

This brief sketch of insurance as it has existed in Rhode Island for more than a century, shows but faintly its evolution and growth. The business has grown enormously and special features have been introduced, such as insurance against wind-storms and insurance of plate-glass against breakage. The fidelity of employees, titles to property, rents and profits may also be insured, and recently a company has been organized in a neighboring city to protect banks, houses and stores against burglary.

Several hundred of the people of Providence are now actively employed in the various branches of this business, which, but little more than a century ago, needed only two small offices for all its patrons. It is to be regretted that men with money to invest have not seen the wisdom of building up larger stock companies, for, with a little more confidence on the part of the citizens of the state, much of the money now paid in premiums to foreign organizations might be kept at home, and the strengthening of home institutions would enable our own people to gather their share of such profits as may naturally be expected for insurance companies in the steady growth of our great country.



CHAPTER CLXVII.

BANKING AND CURRENCY IN RHODE ISLAND.

BY JOHN WINTHROP VERNON.



THE chapter which here follows is supposed to be confined to a history of banks and banking in Rhode Island. When limited to the modern understanding of these terms, we could not go back of the year 1790. But we have undertaken something more; we have given the broadest interpretation to the terms, and we shall attempt a history of money, of bills of credit, and of banks, and the effects resulting by their use, upon the business, or commerce, or industrial product of Rhode Island.

With this end in view we have divided the study into three epochs, thus: the period 1636-1715, the period 1715-1790, and the period 1790-1890. The reason for this division is that for the first period Indian money—wampum—and English silver were the circulating mediums used by the people in the payment of debts, or for merchandise; for the second period, paper bills of credit and English silver performed this service; and for the third period, banks incorporated by the state or United States with a paper circulation based upon coin performed the service. We will begin our account with a description of wampum, an article which the English found in use here among the Indians, given in exchange for things which the Indians desired, just as we now use what we call money. Whence came the idea to the Indians is not known; they did not derive it from the English; it was here when the English came, and the English availed themselves of it in their trading with the Indians to the largest extent, but the use of it among the English became less and less as the population increased, and as the Indian settlements became more remote, until finally it ceased to be used, and became a curiosity. Let us describe it, using the excellent description by Roger Williams, by far the best account now existing. One writer, using Williams' account in speaking of this wampum, says: "Indian money, 'coyne moneash,' from the English money, as Roger Williams quaintly terms it" (Weeden Econ. Hist. N. E., Vol. I., p. 32). By referring to the key of the aboriginal language, it will be seen the name *Moneash* was given by the Indians to the English money, and not by themselves, nor by Williams to wampum. Mr. Williams describes "wampum," by which term we intend Indian money, and synonymous with "Peage," as being of two sorts; one white, which they made from the shell of the periwinkle; the other black, inclining to blue, made from the shell called by them *poquauhock*. Writing thus, in 1643, seven years after the settlement of Providence, Williams says, concerning relative values, of the white, six are current with an English penny; of the black, three make an English penny.

These Indians dwelling upon the seaside were necessarily the chief "producers" of wampum, hence the Narragansetts dwelling along the shores of the bay, being so favorably situated, were the largest makers of it. The Narragansetts became the Indian bankers of New England (clam bankers, the inland Indians might have called them), and they were the wealthiest among all the tribes. This wampum consisted of small rectangular pieces of shell, with a hole bored through the middle, by which means it was strung upon sinews; before the English came these holes, Williams says, were bored with stones; the English brought "awle blades," which must have had the effect to largely increase the supply, and necessarily to lessen the purchasing power. Even in these first seven years (1636-1643) a great decline in the relative value of wampum with silver took place. Williams says one fathom of wampum (not a measure of length as now used, but one of amount), sixty pence worth, was in 1643 worth five shillings in English silver, which a few years before was worth nine shillings. Gorton and his eleven companions in 1642 bought the tract of land, Warwick, as they named it, about one hundred and sixty square miles, for one hundred and forty-four fathoms of wampum. The decline Mr. Williams attributed to the fall in the value of beaver skins in England; such a reason was incomprehensible to the Indians, and notwithstanding Williams labored to make them understand it, they still believed that the English cheated and deceived them. Concerning this Indian money, Williams says: "They hang it in strings about their necks and wrists, as also upon the necks and wrists of their wives and children." It was also wrought into girdles, which, Williams says, they make curiously of one, two, five, or even more inches in width, sometimes to the value of ten pounds or more. These girdles, he says, they wear about the middle, and as a scarf about their shoulders and breasts. King Philip's belt surrendered to the English by Annawan, is at once suggested; Mrs. Rowlandson's account of Weetamoe, the most celebrated among the Indian women of that period, touches the subject. She was a proud dame, Mrs. Rowlandson says, "bestowing every day as much time in dressing herself as any of the gentry of the land, powdering her hair, painting her face, wearing necklaces and bracelets, and with jewels in her ears; when she had dressed herself, her work was to make girdles of wampum and beads."

Josselyn describes this Indian money, "as being of two sorts, blue and white; the first is their gold, the last their silver." The earliest Rhode Island colonial enactment concerning wampum now existing is that of May, 1649, which ordered that "noe person shall take plack peage of the Indians but at four a penny." Wampum had fluctuated so much in value that in November, 1658, the colony ordered that "seeing peage is fallen to so low a ratte all fines, rates, 'taxes,' fees, damages and costs of courts in actions shall be accounted and payed in peage at eight per penny white." Things went from bad to worse, and in 1662 the General Assembly declared "that peage is fallen to soe low a ratte and it cannot but bee judged that it is but a commodity unreasonable to be forced upon any man." From which time all fines, rates, fees, etc., "were to be accounted and payed in current pay, according to marchants pay, or as pay doth passe betwixt man and man at money price."

Two or three instances of town uses of this wampum will illustrate our study. In 1661, the Providence town treasurer received of Andrew Harris the sum of thirty shillings in peage, at eight per penny, which is in full of his purchase money according to an ancient town order. In January, 1660, certain lands were to be paid for in peage at six per penny white, or three per penny black; in March, 1661, a tax of £35 in peage at eight per penny was levied to pay towards the colony prison; at the same meeting the town ordered that Steven Northup, the town sergeant, should be

paid three shillings per day, for four days, in peage at eight per penny for attending the court of trial; loans were made by the town treasurer of Providence to the town in wampum, but it is a singular circumstance that the town in 1687, owing a balance of £8 to the estate of this officer, loaned by him in wampum to the town, declined to pay in the same coin; evidently the town was not a repudiator, and wampum had become worthless.

There now appears no later official recognition of wampum as money, by either the colony or the town in Rhode Island, save in two singular instances: the first, in case an Indian shall steal in the "vallew" of twenty shillings in peage at six a penny in goods, he shall be "sould as a slave to any forraigne country;" the other instance was in "mitigation" of a punishment awarded to an Indian sachem Quinapint, who was to pay £15 in peage at sixteen a penny; this "mitigation" either doubled the fine, or peage had declined fifty per cent. in value. Materials for the comparison of values of merchandise in either wampum or in silver in these years do not exist, so far as we now know.

In 1663, in Providence, pork was twenty-eight shillings per hundred pounds; wheat was four shillings and sixpence per bushel; peas, three shillings and sixpence per bushel; butter, sixpence per pound; these were probably standard prices in silver; and by giving more wampum as it declined, men could buy them. This wampum was never a universal currency among the English, excepting just so far as it could be used in trade with the Indians. The moment that it ceased to be useful among the Indians, the English no longer took it in payment; it represented no intrinsic value whatever. The moment the Indian ceased to want it, which he soon did, the value was completely extinguished; in 1675, Mather speaks of a capture of wampum as being in amount "half a-bushel." From these years until 1715, the circulating medium in the colony of Rhode Island consisted chiefly of English silver, and latterly of the paper bills of credit of some of the surrounding colony. Coastwise commerce had scarcely developed to the slightest degree.

CHAPTER CLXVIII.

BANKING AND CURRENCY IN RHODE ISLAND—Continued.



IN 1710 the colony of Rhode Island began the issue of paper bills of credit; issues of such bills were begun in Massachusetts in 1690, and were there continued for many years in large amounts; the other New England colonies soon followed. Governor Ward, of the colony of Rhode Island, made, in 1740, a report to the English government concerning these issues, so far as this colony was concerned, from which can be learned much concerning the commercial and industrial conditions then existing here. Agriculture, and those industrial pursuits connected therewith, were the chief occupations of the colonists. Muscle, not money, was what they brought with them; the wilderness was to be subdued, and they subdued it; Governor Ward, from whom we shall here draw our picture, but not in his exact language, says that until the beginning of the eighteenth century there was little or no commerce; the rude mechanical trades and agriculture were the chief employments of the people. With the peace of Utrecht

(1713) trade revived, more vessels were built, and commerce grew. The merchants of Boston, doing in fact all the business of importing from Europe, bought all the gold and silver in the colonies, in order to make remittances, and pay their debts. Thus the people were left absolutely without anything in the form of money with which to pay for their exchanges among themselves; business was conducted by barter.

There was, indeed, no legitimate commerce, but there were some disreputable enterprises carried on by certain Rhode Island citizens under the name of privateering, which differed little from piracy. These enterprises brought, besides slaves, some wealth into the colony. The names of these gentlemen still grace the pages of Johnson's famous *History of the Pirates*. This piratical spirit found vent in the "romantic expeditions" against the French colonies in Canada; and it was in fact the first of these expeditions that under Sir William Phips, from Boston, caused the first issue of the bills of credit by the colony of Massachusetts.

So in Rhode Island the reasons assigned for the first issue of banks, as the large sums were called, and which issue was to be loaned upon mortgages, were, for the first bank—that of 1715—that orders were received from Queen Anne to go upon an expedition against the French and Indian enemies. But there were other pretexts given; among them "that trade is sensibly decayed, farmers thereby discouraged, husbandmen and others reduced to great want, and all sorts of business languishing," . . . "silver and gold, in the first place, necessary to defray the incident and occasional charges hath been exhausted."

So, too, it was with the second bank, that of 1721. Her majesty had issued her commands to go upon an expedition against Annapolis Royal; and silver and gold had left the colony, and agriculture needed encouragement, and so the interest upon these loans was made payable, at the option of the borrowers, in flax or hemp.

Such were the beginnings of a system of finance in the colony under which, while it cannot be denied that it developed commercial and other industries, became at last disastrous to all her interests, and ended with the most disgraceful episode connected with the history of the colony. Governor Ward, before cited, declares in 1740, that with every issue of bills trade grew larger, and commerce was largely increased; with no commerce at the beginning of the issues in 1710, by the year 1740 there were one hundred and twenty ships or vessels belonging to the inhabitants constantly engaged in commerce; this commerce was carried on with the coast of Africa, for slaves; along the present Atlantic coast of this country; a few ships were sent to Europe, and a great many were sent to the West India Islands. Governor Ward declares that navigation is the one main pillar on which this government now rests.

These merchants exported from Rhode Island lumber for buildings, casks, beef, pork, flour, and provisions of many kinds, horses, and even vessels, which were built for sale in these islands; Rhode Island vessels engaged in the African trade took rum to Africa to pay for the negroes, selling the negroes for slaves among the West India Islands; buying molasses or sugar to bring to Narragansett Bay and make into rum. So the round went on during the period 1720–1740.

Direct trade between Rhode Island and the London merchants began about 1733; to pay for purchases in London there were sent from Rhode Island vessels built here; log-wood brought from Honduras in Rhode Island vessels; and to some considerable extent bills of exchange, drawn by West India planters, on European merchants. It was these exchanges which kept the bills of credit then from so rapid a decline. Silver went from eight shillings per ounce in 1710 to twenty-two shillings

per ounce in 1730, but from 1731-1740 the price went only from twenty-two to twenty-seven shillings per ounce.

Pretexts were never lacking for the issue of banks; for that of 1728 the pretext was "because at this juncture there being so great a scarcity and want of proper medium Exchange." "Trade and Commerce, the nerves and power of Government, begin in a sensible manner to decline, stagnate, and decay." The New England colonies coined no money, save only that of Massachusetts in 1652, and known as the Pine Tree money; it was silver. The English government prohibited, by a statute, the exportation of her coins, and no coins were struck by that government for her New England colony. Spanish and Portugese coins came into the colonies through commerce, in limited amounts, and became the moneys of the exchange, assisted by barter, until the advent of bills of credit. It was without doubt, this practice of barter which largely developed that natural tact in trade, or shrewdness, which came to be a characteristic of the New England Yankee. We have said that Rhode Island coined no money; and this is the truth; but in derision the name "Bungtown Copper" has been applied to us. Our answer is that "Bungtown," where these curious counterfeit pennies were made, was known later as Barneyville, which happily is in Massachusetts; Rhode Island, we will not deny, received her full benefit from these rascally cheats.

The fourth bank came in 1731; the issue of this bank became a political question; Governor Jenckes strongly opposed the system, and the Newport merchants memorialized the General Assembly, but it was of no avail; the Wanton family came into power upon this issue, which power was retained with more or less success until ultimately overthrown by the forces of the Revolution. The bounty system which was inaugurated in the colony in 1722, with the issue of this bank was largely increased. Nine pence a pound for hemp; four pence a pound on flax; five shillings a barrel for whale oil; one pound a pound for whale bone; five shillings a quintal for codfish were the bounties given.

In 1722, a bounty of £1 for each bolt of hemp duck made in the colony was paid; it was an indication of the growth of commerce. The colony, for the protection of this commerce had built five privateers; and it had built a strong fortification, mounting thirty-six cannon for the protection of the harbor at Newport. A large trade with Connecticut had developed at Newport, and Boston merchants had become among the largest buyers of merchandise from these Newport merchants. The immediate results of this bounty system is shown by the sums paid by the colony for the development of these industries:

£. s. d.			£. s. d.			£. s. d.		
In 1733, . .	431	12 8	In 1737, . .	1500		In 1741, . .	983	19 4
" 1734, . .	758	18 4	" 1738, . .	1781	4 6	" 1742, . .	1766	5 7
" 1735, . .	910	18 5	" 1739, . .	1627	11 11	" 1743, . .	1554	18 11
" 1736, . .	1044	18 5	" 1740, . .	1462	16 10			

The basis upon which these bills rested, is shown by the laws under which they were issued; the act creating the first bank, that of 1715, was the same in tenor as the law of 1710; it was enacted that this indented bill shall be equal to money, "which is an admission that it was not money, which principle was at all events sound; and it provided that the bills were to be received at their face value, in all public payments; and also shall be so taken by the Treasury for any stock." This word "stock" means such produce, or furs, or materials, as the colony had received from the inhabitants in payment of taxes. The bills were not otherwise redeemable,

and had in themselves no intrinsic value, and as a matter of course the difference between the face value of the bill and the selling prices of materials grew wider and wider, until at last a man would require a wheelbarrow to transport the amount which he received in exchange for ten dollars in Spanish silver. This depreciation, as people called it, was the same in all the colonies. The issue of Massachusetts in 1690 declined thirty per cent. as soon as it was put into circulation. It was "Fiat" money, pure and simple.

The dates of issue of these banks were at the times, and in the amounts as follows:

In 1715, . .	£40,000	In 1733, . .	£104,000	In 1744, . .	£40,000
" 1721, . .	40,000	" 1738, . .	100,000	" 1750, . .	25,000
" 1728, . .	60,000	" 1740, . .	20,000	" 1786, . .	100,000
" 1731, . .	60,000				

But these sums were by no means all the bills which were issued; the General Assembly took advantage of every imaginable pretext to make issues, between these bank emissions. So that it is practically now impossible to give any correct data concerning the amount in circulation at any particular date. It is, however, certain that the amount was for many years constantly increasing; from the beginning in 1710, until 1750, from which time the decline began, and continued until the end; but as the Rhode Island bills decreased in amount, other bills came, especially the Continental bills. While it is not possible to state accurately the actual amount outstanding of the bills of the colony of Rhode Island, we have prepared the following table as an approximate estimate:

PERIOD.	AMOUNT ISSUED.	AMOUNT BURNT.	BALANCE.	TOTAL BALANCE IN CIRCULATION.
1710-1724. . .	£95,300	£8,130	£87,170	—
1724-1730. . .	94,634	32,470	62,164	£149,334
1730-1740. . .	367,067	65,118	242,949	392,283
1740-1750. . .	266,000	88,725	177,275	569,558
1750-1760. . .	319,909	336,058	None.	553,409
1760-1786. . .	392,660	622,741	None.	323,328

The population of the colony had increased from about seven thousand two hundred and fifty in 1710 to about thirty-three thousand in 1750. The amount of bills in circulation, *per capita*, rose from about £12 in 1710 to about £17 in 1750.

The value in sterling of these bank-issues appear in the reports of committees at various times. These we have tabulated as follows:

The issue of 1728, £40,000 was equal to £12,800 sterling.			
"	1731, 60,000	"	16,841 17s. 4d. sterling.
"	1733, 100,000	"	25,396 16s. 0d. "
"	1738, 80,000	"	19,753 1s. 4d. "
"	1740, 80,000	"	15,802 8s. 0d. "
" Old Tenor "	1743, 160,000	"	28,444 5s. 4d. "
" Lawful Money "	1750, 25,000	"	18,750 sterling.
" O. T. "	1755, 254,000	"	24,000 "
" L. M. "	1758, 20,909	"	15,681 15s. 0d. "

The great difference in the sterling value of the banks issued in 1743, 1750, 1756 and 1758 was in the tenor; 1743 and 1755 were "old tenor;" while 1750 and 1758 were in "lawful money."

The depreciation in the face value of these bills was pronounced and immediate. Within one year from the first issue in 1710, the General Assembly attempted to fix a legal rate at which they should pass current; the rate was at 140 in bills to 100 in silver. Such legislation was not then, nor will it ever be, effective, for in 1748 the rate was 1000 to 100.

The cause of this depreciation was set forth in 1749, in a report made by order of the General Assembly, by a committee, of which Stephen Hopkins was a member:

"The reason of this great depreciation, observable in the bills issued by the colony, is because the inhabitants of New England constantly consume a much greater quantity of British manufactures than their exports are able to pay for, which makes such a continual demand for gold, silver and bills of exchange to make remittances with, that the merchants to procure them are always bidding one upon another, and thereby daily sink the value of paper bills with which they purchase them. And it is plain that where the balance of trade is against any country, that such part of their medium of exchange as hath a universal currency will leave them, and such part of their medium as is confined to that country will sink in its value in proportion as the balance against them is to their trade. For what hath been the case with Rhode Island bills hath also been the common fate of all the paper bills issued by the other colonies in New England, they having been all emitted at near equal value, and have always passed at par one with another, and, consequently, have equally sunk in their value; and this will always be the case with infant countries that do not raise so much as they consume, either to have no money or, if they have it, it must be worse than that of their richer neighbors, to compel it to stay with them."

From whatever cause came this depreciation, the results form curious reading; these results we have attempted to show in various ways. One of these ways is the property qualifications required for the admissions of persons in the colony to the elective franchise. In 1723 the value of such an estate was fixed at £100; as the value of the bills declined, the value of the required estate was increased to £200; and in 1746 it was still further advanced to £400.

In 1761, in a settlement with one of their merchant captains, Messrs. Nicholas and John Brown paid the captain "Fifty-six shillings starling @ 31 for one deviation of the Star'g Bill & money brot hooime by Page."

For a day's labor, hewing timber in 1725, two shillings were paid; for a day's labor, carpenter in 1740, fifteen shillings were paid; for a day's labor, carpenter, in 1745, £1 4s.6d. were paid; for a day's labor, tailor, in 1758, £1 10s. were paid; for a day's labor, painter, in 1765, £8 were paid.

Samuel Winsor, who was the pastor of the First Baptist Church in Providence, was by trade a cooper, and week-days worked at his trade making cider-barrels; he was paid for these barrels, in 1726, four shillings; in 1730, four shillings and sixpence; in 1740, six shillings. The bounty for killing wolves furnishes a curious illustration; it was begun in very early times by the colonial government. In 1696, the bounty was reduced from five pounds, which it was in 1646, to ten shillings. Wolves increased in numbers; in 1703 this bounty was doubled; this stimulus increased the number of wolves killed from one in the year 1703, to fifty killed in the four following years. In 1710 the first bills of credit came and silver money was held at a premium, the killing of wolves declined; in 1715 the bounty was increased fifty per cent., and six animals were killed. The bills continued shrinking in value, people would not hunt wolves even for their own protection, for such a depreciated currency. In 1717 the bounty was increased to five pounds,

and fifteen wolves were killed. As the purchasing power of the bills became less and less, the wolves had the run of the woods until 1732, when the bounty was raised to ten pounds; but so great was the depreciation that even this large sum was considered to be too small, so in 1739 the bounty was raised to thirty pounds. The average colonial citizen would not kill wolves, even for his own protection, for a depreciated bill of credit.

As a better illustration of these depreciated values, when the depression most nearly touched social life, the following table is submitted.

	1724	1730	1740	1750	1755	1763	1779
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Butter, pound,	0 0 9	1 4	2 0	.....	14 0	.....	13 0
Cheese, "	0 3 ¹ / ₂	0 9 ¹ / ₂	.....	.....	.....	.....	6 6
Wool, "	1 6	2 0	.....	8 6	9 10	.....	18 0
Mutton, "	0 3 ¹ / ₂	.....	0 8 ¹ / ₂	0 7 ¹ / ₂	.....	.....	4 6
Molasses, gal.,	3 0	3 6	5 6	1 0 0	.....	2 11 0	.....
Corn, bush.,	5 0	6 0	8 0	.....	2 15 0	5 0 0	4 10 0
Turnips, "	1 6	4 0	3	6	.....	.....	.....
Oats, "	3 0	.....	.....	.....	.....	.....	.....
Rum, gal.,	.....	.....	6 0	0 13 0	1 8 0	.....	6 15 0
Salt, bush.,	.....	.....	.....	1 16 0	.....	2 13 4	13 10 0
Hay, ton,	2 10 0	.....	.....	.....	.....	.....	.....
Rye, bush.,	7 0	8 0	.....	.....	.....	.....	5 10 0
Flour, bbl.,	2 13 6	3 12 7	.....	.....	.....	45 4 9	.....
Veal, pound,	.....	5 ¹ / ₂	0 4 ¹ / ₂	.....	6 0	.....	4 6
Sugar, "	.....	.....	0 8	.....	.....	.....	18 0
Pears, bush.,	0 6	.....	1 6	.....	.....	.....	.....
Beef, pound,	.....	.....	0 7	.....	.....	.....	5 0
Pork, "	.....	.....	0 7	.....	.....	.....	.....

The issues of these banks while the colony of Rhode Island was a dependency nominally of England, came to an end in 1751 in the following manner: The Paper Money Party proposed the issue of a new bank; those men who had so long and so ineffectually opposed these banks appealed for assistance to the House of Commons; this body passed a series of resolutions, declarative of the effects of these Rhode Island banks upon property in the neighboring colonies, in these words: "That the great rise in the value of silver, and in exchange, occasioned by the repeated emissions of Paper Bills of Credit, particularly in Rhode Island, hath been the means of defrauding the creditors in all the four governments of a great part of their property, and by introducing confusion into dealings, hath proved a great discouragement to the trade of these kingdoms." These "kingdoms" were Connecticut, Massachusetts, New Hampshire and Rhode Island. A law was thereupon enacted by parliament prohibiting absolutely the issue of such bills, and disfranchising any governor of Rhode Island who should sign such laws of issue. Under the charter of Charles the Second, the colony of Rhode Island was as absolute an autonomy as England itself, and parliament had no more power to disfranchise a governor of Rhode Island than had Massachusetts; nevertheless the act of parliament was effectual; the bank, proposed in 1751, was never issued; nor were there any more banks issued until after the Revolution. In place of flooding the other colonies with her worthless paper bills, she became herself the victim. She was so overloaded with outside bills that prices went like sky-rockets, out of sight. There is now before me a copy of Blackstone's Commentaries in five volumes, which was once bought by a Rhode Island judge, for \$600. It was bought in 1780, and worth at that time \$10 in silver.

It will be proper to bring this section of this history to a close with some account of the famous and infamous bank of 1786. The Revolution was ended, and independence had been attained, but at an immense cost to Rhode Island; her people were bankrupt, and her commerce ruined; her people knew no remedy for those insufferable ills, and they seized upon this straw. The bank was for £100,000. The bills were declared equal to silver, and were a legal tender for all debts, save to charitable institutions; they were loaned on mortgages as usual, at four per cent.; it was, in fact, a general liquidation law for debtors; special courts were created; a debtor could deposit the amount of his debt, in these bills, with the judge of one of these courts, and all proceedings against the debtor were thereafter stopped. Still, men would not take the bills for merchandise, so the General Assembly enacted a law laying a penalty of a hundred pounds upon men who refused to take the bills; but this law was not sufficiently severe; another special court was created, to be convened within three days, a person so charged was to be tried without a jury, and if proved guilty, sent to prison. Under this law arose the *Trevett vs. Weeden* case. The action of the court, before which this case was tried, has been so often stated by law-writers, and always stated erroneously, that we come again to it.

The case was before the Supreme Court; the court held that special courts were created by the act for the trial of such cases; that it was not such special court; it had no jurisdiction, and dismissed the case. The court did not declare the act unconstitutional, but it was the end of the case, and of the law, and of the system. The depreciation was unprecedented, even in bills of credit.


In July, 1786, 6 shillings in specie were 9 shillings in bills; in October, 1786, 6 shillings in specie were 8 shillings in bills; in January, 1787, 6 shillings in specie were 24 shillings in bills; in April, 1787, 6 shillings in specie were 34 shillings in bills; in April, 1788, 6 shillings in specie were 38 shillings in bills; in July, 1788, 6 shillings in specie were 45 shillings in bills; in January, 1789, 6 shillings in specie were 60 shillings in bills; in July, 1789, 6 shillings in specie were 90 shillings in bills.

It was not the purpose of the present writer to enter largely upon the antiquarian side of these affairs; this view has been set forth very fully by the late Elisha R. Potter, in *Rhode Island Historical Tract*, First Series, No. 8, but we have especially sought facts which would illustrate the financial aspect of the affairs, and these we have illustrated by every means within our reach; it is a field hitherto unexplored, but of great interest, and most instructive. The obnoxious penal statutes were soon repealed; but it was thirty-four years before the bills were taxed out of the possession of the people; the tax laws provided that a certain small percentage of taxation might be paid in the bills of this last bank; this method ceased in 1820.

We have now reached the year 1790, at which time a new financial system came into existence. It was the system of State Banks, as such institutions came to be known.

CHAPTER CLXIX.

BANKING AND CURRENCY IN RHODE ISLAND.—Continued.

HE paper bills of credit system came to an end with the collapse of the bank of 1786, and the action following the case *Trevett v. s. Weeden*. The Constitution of the United States was ratified May 29, 1790, and Rhode Island became one of the United States. Business was in a state of collapse, everybody was in debt, and few could pay their debts. Commerce had not revived after the Revolution, and the inhabitants were leaving the state for other and more promising lands; large numbers of people emigrated to Nova Scotia, to Ohio, to western New York, to Pennsylvania, and some to Canada; the idea had taken possession of the people that Rhode Island had become exhausted.

Just at this time there came to Rhode Island an Englishman with an industry which soon changed the entire business conditions of the state. It was Samuel Slater, with cotton-spinning machinery run by water-power. A mill was constructed at Pawtucket. In an incredibly short time small mills were built upon every stream in Rhode Island wherever water-power could be used.

Three-quarters of a century of vicious financial legislation had left Rhode Island without a medium of exchange; the people, in 1790, had no money wherewith to settle balances in trade; it was of the first necessity that a stable currency should be found, and it was found by the granting of a charter of incorporation in 1791, by the General Assembly of Rhode Island for the Providence Bank. This institution was the fifth of its kind in the country; a similar institution had been established in Philadelphia in 1781; another in Boston in 1784; another in New York in 1784; and another in Baltimore in 1790; the latter having failed, the Providence Bank now stands fourth in the list of those now existing which were first established. The preliminary steps for the establishment of this institution are of sufficient interest to be narrated. A meeting of those interested was called at the state-house, when it was declared that a state institution would be far preferable to any branch of some other institution. A state bank, that is, one chartered by the state was resolved upon, but in order to enlist the support of both the state and the general government, blocks of stock were reserved for each. The scheme was for the creation of a bank with \$250,000 capital; 625 shares of \$400 each. One hundred and twenty-five shares were reserved for the general government, and fifty shares were reserved for the state government. Thus four hundred and fifty shares were left open for subscriptions, and a meeting was called at the state-house for subscriptions, this meeting resulting in a subscription for 1,324 shares, exclusive of the general government and the state; neither of these powers took the shares reserved. Subscriptions came in large amounts from Philadelphia, New York and Boston, where similar banks had been several years in business.

The chief reason assigned here for this bank was "the rise in value of Bank Stock, and the scarcity of specie as a medium of trade," in plainer English the ability to issue bills to take the place of specie was a source of great profit, with no risk. The stock was to be paid for two-fifths in silver, or in gold, and three-fifths in U. S.

Funded Debt Stock at six per cent. The bank at once began business with a capital of \$250,000.

"Taught by the experience of Europe and America that well regulated Banks are highly useful to Society by promoting punctuality in the performance of Contracts, increasing the medium of trade, facilitating the payment of taxes, preventing the exportation of specie; furnishing for it a Safe Deposit, and by Discount rendering easy and expeditious the Anticipation of Funds on lawful interest, advancing at the same time the interest of the proprietors."

Among the earliest bank charters granted by Rhode Island was that of the Farmers' Exchange Bank of Gloucester, granted in February, 1804. The great scandal growing out of this Charter induces us to enlarge a little upon the advance in systems made by the state over the system of the bills of credit of the preceding century. The parties obtaining the charter were chiefly Rhode Island men dwelling in the immediate neighborhood of the location; but a Boston party soon obtained control of the institution, Andrew Dexter, Jr. The charter was for \$100,000. But the entire sum paid in, was \$19,141.86. Mr. Dexter was a person of financial ability far superior to that of the Gloucester countrymen, who attempted to establish the Bank; he obtained the control at the beginning of the year 1808, and in May gave these instructions to the cashier.

"The general rule should undoubtedly be to pay punctually, but to this there are important exceptions, such as when we are run upon by brokers, or any person whatever, merely for the purpose of making a profit out of the injury and loss of the Bank; these ought to be paid only by drafts on the exchange office (in Boston) at forty days' sight. The Providence Banks should be plagued as much as possible, by detaining them as long as it will naturally take to count all kinds of specie change intermixed in the most deliberate manner. The change is very important, and ought to be husbanded as much as possible, never to pay it away except where the intention is to plague and delay the person."

The plates used in printing the bills were placed in the hands of Dexter, who procured the paper, and caused the bills to be printed. The cashier, at Dexter's request, signed the bills only in the night. The directors allowed Dexter to make his own rate of interest, and give such security as he thought proper, giving the following peculiar form of note for his personal indebtedness. This form of note is, so far as our limited experience goes, unique. It seems a little singular it should ever have been allowed to pass quite out of use.

"I, Andrew Dexter, Jr., do promise the President, Directors and Company of the Farmers' Exchange Bank, to pay them or order — dollars in two years from the date, with interest at two per cent. per annum, it being, however, understood that said Dexter shall not be called upon to make payment until he thinks proper, he being the principal stockholder, and best knowing when it will be proper to pay the same."

We have heard of notes payable six months after convenience, but we never before supposed such things really existed.

So successful were the financial efforts of Mr. Dexter, that in the February following (1809), just one year, the bank had a circulation of outstanding bills amounting to \$580,000, and available assets of precisely \$86.00. We believe that in Rhode Island history no greater outrage upon justice was ever perpetrated than in this case. And for a gigantic financial swindle, not surpassed by anything in our history, we suggest the Farmers' Exchange Bank; fortunately for the credit of Rhode Island the guilty parties came from outside her borders, and their acts led to important changes in the structure of charters.

As the business of manufacturing cotton grew, necessities or opportunities for other similar banks became apparent, and in 1795, the Bank of Rhode Island, at Newport, was chartered; in 1800 the Washington Bank at Westerly; in the same year the Bank of Bristol was created; in 1801, the Exchange Bank in Providence, and in 1803, there came three, the Roger Williams of Providence, the Newport, of Newport, and the Warren, of Warren. Charters continued to be granted. From 1791 to 1871 there were one hundred and twenty-eight banking charters granted by Rhode Island. In 1864, the year before the beginning of the National System, there were eighty-six banks existing in Rhode Island; in 1865 there were but twenty-five; and in 1871, there were but fifteen; and in 1895, there were but six remaining of which two were in liquidation; the others had gone into the National System or out of existence. No new bank charters have been granted for many years; but in place of them there have come Trust Companies, of which there are eight existing in the state with total resources of about twenty-five millions of dollars.

The first savings bank in Rhode Island was the Providence Institution for Savings, incorporated in 1819. From that year until 1871 there were granted by the state forty-two charters, of which in 1895 thirty-five were in existence, but five were then in liquidation. Recently there have sprung into existence loan and building associations; but as these institutions are chiefly land speculations, they scarcely come within the field of financial history.

The present condition of the banking institutions of Rhode Island may be summarized as follows:

	CAPITAL.	SURPLUS PROFITS.	DEPOSITS.
National Banks. . . .	\$19,337,050	\$6,593,940	\$22,676,556
State Banks	495,000	151,186	754,835
Trust Companies	2,826,500	1,209,969	20,580,303
Savings Banks	—————	3,843,115	68,683,698

CHAPTER CLXX.

BANKING AND CURRENCY IN RHODE ISLAND.—Continued.



T may be proper to refer to the fact, already well known, that the national banking law virtually suppressed state banks by a ten per cent. tax upon their circulation. In this state deposits alone were not sufficiently large to make the banking business profitable. To banks entering the national banking system, however, the opportunity offered by the ability to issue ninety per cent. circulation against government bonds bought by the bank, upon which they received interest at six per cent. in gold, which was selling at a high premium, opened an attractive avenue to large profits. The profit upon this branch of the business of the national banks—namely, their circulation—greatly diminished with the retirement of the government bonds carrying six per cent. interest and the substitution of bonds carrying first five, then four and a half, and then four per cent., and some as low as two per cent. With these lower rates of interest upon government bonds, such interest, no longer commanding any premium, as was the case in the earlier days, rendered the business comparatively unprofitable, so that there has been a very large reduction in the amount of outstanding national bank circulation.

At the present time the banking business with most of the banks of the state is far from remunerative, few of them being able to earn six per cent. upon the capital invested, and still fewer being able to pay a reasonable rate of dividend upon capital and surplus. In fact, there has been a marked loss in the percentage of surplus to capital with most of the banks within the last ten years or more, while their dividends have been reduced and, in many instances, cut in two.

Another effective cause of this loss has been the establishment of trust companies, acting under and incorporated by state laws, with exceedingly liberal charters. While national banks are prohibited from loaning upon real estate, and are obliged to keep their funds invested in commercial paper or obligations that are quickly convertible into cash, trust companies are allowed to purchase real estate, loan upon real estate, buy bonds or stocks, or, in fact, to make any use of their funds that they see fit.

The Rhode Island Hospital Trust Company was the first trust company in the state, and was incorporated in 1867; commencing business January, 1868. In consideration of their agreement to pay the Rhode Island Hospital a certain percentage of their profits, the legislature granted them an exclusive charter, and they commenced business with that advantage. Their business, as indicated by their title, was intended to be, first, to act in a trust and fiduciary capacity; administrators, executors and trustees who deposited money with them being exempted from personal liability; secondly, to conduct a savings bank business under the name of participation account; and third, to carry on a general banking business like any bank of discount. They opened their doors with the attractive feature of offering four per cent. interest upon current accounts of \$100 and upwards. As interest was not allowed by the banks of the city and state, except savings banks, where dividends were made only at semi-annual intervals, the inevitable effect was to cause a transfer of deposits from banks to the trust company. As the banks still adhered to their policy of not paying interest this process continued to be more and more of a drain upon them, so that they presently found themselves in a condition that compelled them to either curtail their loans or to borrow money. The result was that to a very considerable extent the banks borrowed of the trust company, at a good rate of interest, the very money which the trust company, through its depositors, had withdrawn from the banks. This process continued until the banks in the hope of recovering some of their business commenced to offer interest themselves on deposits, but it was very difficult to accomplish this without offering higher rates than the trust company gave, which would leave no margin of profit after providing for inevitable losses incurred in the carrying on of the business.

At the present time this one trust company holds deposits nearly equal to the amount of deposits in all the banks of the city of Providence, which in twenty-six of them amounts to about \$18,000,000.

It is a singular circumstance that the incorporators of this first trust company established in the state were largely directors in banks, and their influence, notwithstanding active opposition in the legislature, carried through the provision enabling the trust company to do a general banking business in competition with the banks, for whose stockholders these directors were acting as trustees; thus practically granting superior privileges in the business they were conducting to an outsider.

Besides this large grant of powers there was an entire absence of any legislative oversight. National banks are required to publish statements in the newspapers, in response to a call of the comptroller of the currency at Washington, five times a year; in addition to this the government sends around, twice every year, a special

examiner to make a thorough examination of the national banks, and to report the result in detail to the comptroller at Washington. The only requirement made of trust companies and savings banks is that they shall report once a year, at a given date to the state auditor, their condition, and there is no provision requiring them to publish this in the papers.

It is greatly to the credit of the management of the trust company that their self-imposed regulations have so far preserved them from disaster, and made a great success of their business.

After some years, operation under the exclusive charter possessed by the trust company referred to, a settlement was made with the Rhode Island Hospital by which the hospital received \$100,000 in stock (the trust company increasing its capital stock from \$500,000 to \$800,000), in lieu of its charter rights to a percentage of the trust company's profits.

The exclusive right to do business as a trust company, based upon this provision of the charter, having been withdrawn by the legislature, several other trust companies were established in the city and state as above indicated.

It is proper to remark that all the savings banks in this state have been chartered and conducted largely on a philanthropic basis,—none of the directors, not even the president, of a savings bank, receiving any compensation for his services. They were first established for the benefit of the poorer class of the community, who were supposed to have no facilities for protecting and increasing their savings, and this end has been largely kept in view by the managers of these institutions, as well as by the legislature. In fact, within the last two years general action was taken by the savings banks, under a law passed by the legislature, to secure the withdrawals of large deposits. Some of the banks had for several years by voluntary rule limited their deposits to any one person to \$1,000.

It is hardly necessary, perhaps, to add more than to refer to the fact that what was called the Suffolk Bank System of Redemption, which was established by the Suffolk Bank, of Boston, in 1824, the principle of which redemption of New England bank notes was afterwards embodied in the National Banking System, was shared in by the state banks of Rhode Island, through the Merchants' Bank of Providence, which received from the Suffolk Bank, bills upon all banks in the state of Rhode Island, returning to the Suffolk Bank all the bills upon other New England States delivered to it by the banks of Rhode Island.

These close relations with the Suffolk Bank, which commenced in 1831, continued until 1858. From that time until the inauguration of the National Banking System, redemption of New England bank bills was principally conducted for Rhode Island, by the Merchants' Bank, and by the Bank of North America, and in Boston by the Suffolk Bank and by the Bank of Mutual Redemption.

The First National Bank of Providence in Rhode Island was incorporated in 1863, and by 1866 the establishment of new national banks, or the conversion of state banks into national banks, had practically substituted national bank circulation for state bank circulation.

We have thus traced the evolution, from business conducted by means of shells as a medium of exchange with the Indians, and by barter of produce and merchandise in the hands of the early settlers, to mediums of exchange which pass for equal values from hand to hand, from Maine to Texas, and from the Atlantic to the Pacific oceans.

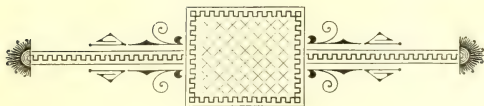
It is not necessary, or perhaps appropriate, to refer here to the wonderful facilities afforded by the modern methods of banking, by which individual or corporation

checks upon different banks discharge debts without requiring the handling of coin or paper money, which checks, in all large cities, are deposited in a general clearing house, thus enabling transactions aggregating many millions in amount, to be offset and settled between the banks by cash or payment of money of a very small percentage of the amounts involved, usually not over five per cent.

With the wonderful advance and progress that has thus been secured within a little more than two centuries, it seems wrong to question the ability of the managers of the financial interests of the country to devise and secure the adoption of measures that will remedy the evils of the present banking and currency systems of the government and of the banks.*

*Whatever of historical value and interest this article upon Rhode Island Banking and Currency Systems may possess is due to the materials carefully gathered and arranged and generously furnished by Mr. Sidney S. Rider.

J. W. VERNON.



CHAPTER CLXXI.

COMMERCE OF RHODE ISLAND.

BY JOHN AUSTIN STEVENS.



AT the outset of this monograph it is as well to state that it is proposed to cover the history of the commerce of, and incidentally only that of the trade of, Rhode Island. According to the best accepted authority the word "Commerce is appropriately applied to traffic carried on between different countries on a large scale; Trade is traffic either on a large or small scale." In the case of the American Colonies, and later of the United States, the term commerce is only properly applied to the exchange of commodities with foreign countries, and trade to the wider but more detailed intercourse between inland communities.

In this examination a curious anomaly will appear: that of a state, with an extensive water front and one of the finest harbors in the world, finding its commercial development while under the restrictions of British rule; and the arrest of that development and consequent decay of its foreign commerce when freed from those barriers as one of the American United States. For it will be remembered that, at the height of its colonial prosperity, Newport was close on the front rank of the commercial cities of the continent.

The harbor of Newport was held in the last century to be unsurpassed by any on the Atlantic coast. For this statement there is the high authority of the famous British Admiral Lord Rodney. It is quoted by Captain Mahan in his late work, "The Influence of Sea Power upon History." It appears in a private letter of that commander to the British Admiralty, in which, commenting on the evacuation of Rhode Island by the British troops in 1778, he says: "It gave up the noblest harbor in America, from which squadrons in forty-eight hours could blockade the three capital cities of America, namely, Boston, New York and Philadelphia." To these advantages for foreign commerce its close proximity to the eastern end of Long Island Sound, where the long chain of inner water-way communication begins, made it a desirable stopping-place and refuge, if need be, of the coastwise trade from New England to the Carolinas.

With the exception of the New Netherlands no one of the North American settlements was made with commerce as a primary object. And even that of Manhattan Island by the Dutch was, at its outset, undertaken more with the view of establishing a port for offence and defence in their wars with Spain than for commercial profit. In the original settlement of Rhode Island trade was not a factor. It did not enter into the mind of Roger Williams. He sought isolation rather than intercourse with his fellow-men, or at least from those who were not of his opinion in matters of con-

science and faith, which were dominant over the feelings and actions of the early settlers of New England of whatever sect. A proof of this absence of any idea of colonial extension by traffic may be found even in the name of Providence Plantations given by Roger Williams to the colony he established on the banks of the Mooshausick. The settlers of Massachusetts were in the main emigrants from the east of England shires. They named their towns after those of the old country. Indeed, from these names it is easy to trace their English birthplace.

The name of Salem, "Peace," in the Hebrew is an exception to this general rule. It signified the end of dissension between the earlier settlers and the later arrivals under Endicott's lead. So likewise the name of Providence was chosen by Williams in recognition of that guiding hand to which he ascribed his deliverance from the trials and perils he had undergone since his banishment from Massachusetts. On his arrival in the Narragansett region he was welcomed by Massasoit, the chief of the Wampanoags, a tributary of the powerful tribe of the Narragansetts who ruled supreme over the entire territory east of the Pawcatuck river. The Narragansetts seemed to have approached more nearly to civilization than any Indian tribe of which there is record. At the time of the Providence settlement they were not only thrifty but rich in accumulated comfort. Their towns were thickly scattered over the territory. While not skilled in agriculture they were deft in the manufacture of earthen ware and carried on a considerable trade with the interior tribes. Moreover, they were the chief makers of Wampum-peage of both kinds, the white of the perrywinkle and the black of the Quohoa or hard-shell clam, which was the sole currency of the Indians over a vast extent of country, reaching to a distance of more than six hundred miles; as also among the English, French and Dutch traders in North America.

Before the arrival of Williams, Canonibus, the chief sachem of the Narragansetts, whose council-tent and seat of government was on Conanicut Island, a post of vantage which commanded the lower end of the great bay, had invited Oldham, a Massachusetts trader whose coasting trips extended from the Boston settlement to New Amsterdam, to establish a fishing station in a little haven on the island of Churabusca; which later became the property of Roger Williams and John Winthrop, and from them received the name of Prudence Island.

The year after Williams with his little band of personal companions began his plantation a second and larger band of exiles from the theocratic government of Massachusetts Bay arrived in the new country, seeking a spot for a settlement. They were enabled by Williams' influence with the Narragansett sachem Canonibus to secure for their purpose the island of Aquidneck, now Rhode Island, where they successively established themselves at its upper and lower end and gave to the little villages they set up the names of Portsmouth and Newport. The choice of these names seems to indicate that at least a controlling portion of the new-comers were of Hampshire origin, and of a sea-bred habit. Portsmouth, a great seaport, and Newport are sister towns in the Isle of Wight on the southern coast of England; an island which Rhode Island is held to greatly resemble in its situation and climate. Nicholas Easton, one of the incorporators of the new community, a chief elder of the colony he who gave its name to Coasters' Harbor, was a native of the English town of Southampton. Nor could the new-comers have chosen a site in itself more propitious for foreign trade. Its advantages were quickly seen and soon aroused the envy of the eastern colonies both of Plymouth and the Massachusetts Bay. If the Puritans had known of these natural advantages they would hardly have ended the voyage of the "Mayflower" at Plymouth Rock; nor would the high dignitaries of the London Company have been content with a settlement at Boston. Had the original landing

or the subsequent settlement been made on the shores of Narragansett Bay, Newport would have rivalled New York as the metropolitan city of the Atlantic, and have become the fountain of New England traffic, the seat of New England commerce. A rivalry which nothing but the opening of communication between New York and the great inland lakes could have disturbed.

The first trading enterprise in Narragansett Bay was, as has been stated, the establishment of a petty fishing station. One of the first acts of colony legislation was the ordering that the "Seabanks is free for fishing to the town of Newport;" a right which was confirmed by the charter of King Charles, and is preserved in the present Constitution of the state.

In 1642 the Rhode Island colonists, who had already begun to suffer from the ban of non-intercourse with their eastern neighbors, turned towards the Dutch on Manhattan Island. The governor and deputy were instructed to "treat with the governor of the Dutch to supply us with necessaries, and to take of our commodities at such rates as may be suitable." Here it is worthy of mention that prior to the arrival of the English, the Dutch West India Company established a trading post in Narragansett Bay at Dutch Island, and Mr. Arnold, the historian of Rhode Island, holds that besides this the Dutch had two fortified trading posts on the south shore of Narragansett, at what is now Charlestown.

Newport became at once the metropolitan town of the colony. The cove was a natural harbor, its depth of water admitting of the passage of vessels of one hundred tons. The name given to the main thoroughfare, "Thames Street," and that of "The Strand" to its water-front, show the purpose and the ambition of the inhabitants.

Owing no doubt to the sparseness of the inner settlement, and the restricted population, both commerce and trade were of slow development. In an answer to a circular of the English board of trade, as late as 1680, Governor Sanford wrote:

"We have several good harbors in the Colony of very good depth and sounding navigable for any shipping.

"The principal matters that are exported amongst us is horses and provisions and the goods chiefly imported is a small quantity of Barbadoes goods for supply of our families.

"We have several men that deal in buying and selling although they cannot properly be called merchants.

"As for merchants we have none, but the most of our Colony live comfortably by improving the wilderness.

"We have no shipping belonging to our Colony but only a few sloops.

"The great obstruction to trade is the want of merchants and men of considerable estates among us.

"A fishing trade might prove very beneficial provided according to the former article there were men of considerable estates among us and willing to propagate it.

"As for goods exported and imported which is very little there is no Custom imposed."

The colony records show, however, the existence of Long Wharf at Newport in 1685, at which time a privilege was granted for building another wharf "into the sea." On an old map (the Mumford map) Long Wharf is styled "Queenhithe," an old English name for a haven for boats, and the street adjoining Shipwright street; all of which indicate some interest in water communication and traffic.

From Governor Sanford's report, it appears that the West Indian trade was confined to the Barbadoes. The trade with this, the most extreme of the Windward Islands, must have been carried on in stout seaworthy vessels. Navigation in the Carribean sea is extremely dangerous, and Barbadoes itself is girted with coral

reefs. It was settled at about the same time as the New England colonies, and was a favorite place for the deportation of political prisoners, as the files in the London record office show. Presumably the vessels concerned in the trade between Newport and Barbadoes were of British build. Although we learn from Mr. Arnold that ship-building was begun early in the history of the colony, and has ever since been an important branch of business in the state, yet there is no evidence that any sea-going vessel had before 1680 been constructed in Rhode Island. Indeed, Sanford says there was no shipping belonging to the colony, only a few sloops. In 1676, during the alarm of King Philip's war, a flotilla of gunboats was built in the island for its defence; a proof that the art of the shipwright was not unknown. On the other hand, there was a considerable coasting trade along the Sound with New London and New Haven and the Long Island towns.

The earliest export trade was in lumber; small lumber, no doubt, as Roger Williams in one of his letters mentions the "clearing of the coast line from wood." An early law fixed the prices of sawed boards, clapboards and fencing. That large lumber was scarce appears from the enactment forbidding its cutting and exporting without a license. There is still extant at Portsmouth a record of the obtaining there of a shipload of pipe staves and clapboards about 1640.

In 1640 the Assembly passed what were called "the sea laws," otherwise the "Laws of Oleran," for the benefit of the seamen on the island, and established "reciprocal duties with foreign nations upon all imported goods except beaver." The beaver skin had been made a legal tender in trade by the Dutch at Manhattan, which no doubt accounts for its exception from custom duty. The information concerning colonial trade in the seventeenth century is at the best meagre. Almost all that is reliable is to be found in the reports to the board of trade, or in occasional surveys.

Privateering can hardly be considered as either commerce or trade, yet in its connection with ship-building, its history cannot be wholly neglected. Privateers were first commissioned in Rhode Island in 1653. War had been declared between England and Holland the year previous. The Dutch were prohibited to trade with the Indians in the colony. Orders were received from the council of state to annoy the Dutch and stop the supply of provisions. The commonwealth was now in power in England. The colonists eagerly obeyed the instructions. Indeed, they exceeded the other New England colonies in their zeal, and seizures of vessels were made, within Dutch limits, of French, Dutch and even New England coasters without much regard to the strict letter of the law.

There is a record of 1666, which throws some side light on the impediments to commerce in the early days. In this year a committee of the assembly was empowered to "send an adventure to Barbadoes" to obtain from the proceeds exchange on England to pay a mortgage in which the colony was interested.

The commercial relations of Rhode Island, like those of its sister colonies in America were nominally regulated by the celebrated Navigation acts which had a great, perhaps a determining, influence upon their political future. It is indeed strange to find that the author of the first of these acts was George Downing, a native of Salem, of whom Mr. Arnold says, "that he was a nephew of the famous Hugh Peters, the father of New England commerce and the founder of her fisheries." Its avowed purpose was to give to England a monopoly of trade with its colonies. Introduced into parliament in 1651, shortly after the pacification of the British dominions, it was accepted by Cromwell as a means of offence against the United Provinces, which, during the dissension in England, had absorbed the carrying trade of the world and now ruled the seas. By the provisions of this act no goods could be im-

ported into England except in English bottoms, or in the vessels of the country where the goods were produced. It was incontestable that his act, which has been styled the "*Charta Maritima*," built up the commerce of Great Britain to its colossal dimensions. Adam Smith pronounced it "the wisest of all the commercial regulations of England." Initiated by the commonwealth, it was remodeled and passed by King Charles' parliament in 1660, after the Restoration. A high-handed measure, as far as other nations were concerned, it was not an unmixed benefit even to England. It was in many ways oppressive to her colonies, whose growth it restricted, and in its operation slowly but surely undermined their affection to the mother country.

Sharp as the line may be drawn between privateering and piracy, the one naturally degenerates into the other unless controlled by the presence of an extensive naval power. In the absence of regular protection by British men-of-war the coast of Rhode Island, with its bays and harbors as havens of refuge for illicit traders, was peculiarly exposed to depredation. In 1682 a crew of privateers, brought into Newport as prisoners, pushed their boldness even to a plot to murder the governor of the colonies; the plot was disclosed by one of the crew and frustrated. In 1683 orders were received from England by the colonies to pass laws against privateering as well as piracy. Laws were passed, but illegal acts continuing in 1696, a bond in a thousand pounds, not to exceed the powers granted by the commission, was required.

After long abeyance, a determined effort was made to enforce these laws. A royal edict issued for regulation of the plantation trade. In pursuance of its instruction the governor and council of Rhode Island established a naval office or custom house at Newport, for the entry of vessels arriving within its jurisdiction. The fees were set at six shillings for every vessel above forty tons' burden and two shillings and six pence for those of less tonnage. This act, passed in 1680, was published by beat of drum. The ordinance was confirmed by the assembly in 1682, and the decree or "charter concerning trade and navigation" was deposited with the governor.

On the accession of James the Second to the throne of England the policy of the home government towards the colonies changed. Among other ordinances confirming the royal authority was "an impost upon sugar and tobacco to be paid by the retailers and consumers." Yet so little understood was the distinction between foreign impost for the benefit of the English government and internal tax for colony purposes that Rhode Island is found in 1696 levying duty upon foreign imports for herself. At a special session of the Assembly, called to raise revenue in that year, a duty was laid upon foreign wines, liquors and molasses imported into the colonies. Molasses was to pay a half penny per gallon. In 1698 the same body provided for uniformity in the size of casks for the packing of provisions by the adoption of a standard gauge and the appointment of gaugers.

Notwithstanding that, in 1683 the governor of the colony was required, beyond the usual engagement of loyal performance of his duty, to "take the oath for trade and navigation," and to execute that act Rhode Island was no exception to the disrespect into which that act had fallen. From Nova Scotia to New York its provisions were violated. In 1694 the authorities of Rhode Island were sharply rebuked. In reply to a circular from the Board of Trade in that year Governor Easton represented that it was the want of proper forts in the bay that prevented the enforcement of the navigation law. In 1697 the evasions had become so general that a royal letter threatened the colony with the withdrawal of the charter if they were continued. The next year, 1698, the Board of Trade represented to the King the many

irregularities committed in Rhode Island ; the refusal to take the oaths, their encouragement of illegal traffic; their assumption of jurisdiction to themselves and resistance to that of the crown, and other flagrant acts of disloyalty. The Board of Trade asked that a commission be sent to Lord Bellomont to examine into these matters with a view to the issuing of a *quo warranto* against the charter. In this general representation Rhode Island was the special colony aimed at.

In 1698, a law was passed against peddling, which had become a serious impediment to regular trade, and soon after a tax was laid upon this class of traders.

In the last year of the century the English-speaking world, at home and abroad, was excited over the misdeeds and trial of the notorious pirate, Captain Kidd. The testimony on the trial showed him to have had close relations with prominent persons ; many of them of Rhode Island. He had often resorted to Narragansett Bay, and his correspondence showed that he had many accomplices there. Lord Bellomont, who was charged with the obtaining of evidence, was determined to break up the nests of the pirates. The charges against Rhode Island were so hotly pressed that the colony was obliged to employ additional aid to its agent in London for its defense. But in this resistance to the navigation laws, Rhode Island was not alone. Bellomont found the same difficulty in enforcing the acts in his own government of New York, where, he says, " the people have such an appetite for piracy and unlawful trade, that they are ready to rebel as often as the government puts the laws in execution against them."

Rhode Island, in neglect or defiance of the orders of the Board of Trade, assumed Admiralty jurisdiction to herself, and passed an act, centering the same in the General Council, as an Admiralty Court. This was later claimed in England to be a stretch of power which warranted a repeal of the charter of the colony.

It was by this radical measure that Dudley boldly proposed to deprive all New England colonies of their organic law and unite them in one royal domain, a fate which it is said was fortunately averted by the influence of Penn with Queen Anne. It was fortunate, perhaps, for the liberties of Rhode Island which, although protected by the liberal charter of King Charles, might have been restricted by Dudley's schemes, that war was declared by England against France and Spain in 1702. This war (Queen Anne's War), gave the adventurous spirits of the seaboard colony an opportunity to show their usefulness to the mother country. Immediately on the proclamation of hostilities they fitted out a brigantine to cruise against the French and Spanish craft in the North Atlantic. Captain Wanton, of the brigantine, returned from the Gulf of St. Lawrence with three French ships, all armed and laden with dried fish from the Banks. The boldness of this aggression could not but please the home government ; but not so the condemnation of the vessel by the Admiralty Court now revived, and the appropriation of part of the prize money to arm Fort Ann ; the first defensive work of consequence attempted by the colony. The royal council had not waited for this last act of independence, but in January, 1704, issued an order annulling the admiralty act, passed by the colony in 1694, and restraining the council of Rhode Island from exercising that power. This disposed of the vexed question for a considerable period.

In 1708 the assembly passed another act, which seemed to be in contravention of the home authority. Although not unlike those previously quoted, it does not seem to have encountered the opposition of the home government. Indeed, it appears that it was only gradually that the home government defined its rights.

A local act, in 1708, laid a duty of three pounds upon every negro imported into the colony. The English trade with Guinea was of long standing. A trading com-

pany was established in the time of Queen Elizabeth. This was succeeded by a second company, which in its turn sold out to a third, which, in 1672, was chartered as the Royal African Company; but in 1698 parliament opened the trade to all merchants for a period of fourteen years. By general demand the trade was continued open at the expiration of that period in 1712. This company ceased to exist in 1752, when a new company took up the lucrative business. To a circular, addressed to the colonies in 1696, as to the extent of the trade with the African coast, reply was made by Rhode Island that but one vessel had arrived direct from the coast. This was in 1696, two years before the act of parliament, opening the trade to the general public, was passed. This vessel brought in forty-seven slaves. In 1700, three slave ships, owned in Barbadoes, sailed from Newport for the coast of Africa. The negroes, brought into Rhode Island, came chiefly from this Carribean port. They were not liked by the Rhode Island planters, because of their turbulent disposition, and the importation did not exceed from twenty to thirty each year. So states Mr. Arnold, but this hardly accords with the census figures unless, perchance, slaves were brought in coastwise from Virginia or the Carolinas. By order of the Board of Trade a census of the colony was taken in April, 1708, when they were found to be seventy-one hundred and eighty-one souls, of whom one thousand and fifteen were freemen; fifty-six white and four hundred and twenty-six black servants.

In 1708 the restrictive lines of the navigation act were again tightened by the Board of Trade. One clause of the acts of trade required that the produce of the plantations, by which term the American colonies were generally described, should be imported into the United Kingdom before being exported to foreign countries. Rice and molasses were specified as having been exported in contravention of the act. This restriction was a direct blow to the foreign trade of the colonies.

A letter of Gov. Cranston of this year (1708) in reply to a circular of the Board of Trade supplies an accurate statistical account of the commerce of the colony at this time. The amount of annual exports to England sent by way of Boston was estimated at twenty thousand pounds. The principal direct trade was to the West Indies. The shipping, owing "to the inclination the youth on Rhode Island have for the sea," had increased six fold in twenty years. This was composed of ships, brigantines and sloops—the schooner was of a later American invention. The vessels are described as "being light and sharp forrunners so that very few of the enemy's privateers in a gale of wind will outrun or outsail one of our loaded vessels." Within eleven years eighty-four vessels of all sizes, from ships to sloops, had been built in the colony; twenty-nine were owned here; nearly all in Newport and the number of native seamen was one hundred and forty.

It has been seen that the first currency of the colony was the primitive wampum, strings of beads in use among the savages, and the traders who bartered the products of Europeans for the beaver skins which the Dutch and French trappers brought in from the wilderness which lay beyond the frontier posts. Wampum was, in the beginning of trade with the Indians, made a legal tender in these transactions by the English as they found it had been by the French and Dutch before their arrival. For this the Dutch soon substituted beaver as a legal tender; but this substitute had but a short life in the Netherland colony where the principles of finance were well understood. Before the close of the first half of the century—1647—the fall in the value of beaver skin in England and the increased manufacture of wampum peage by the Indians had depreciated the value of these currencies one-half. Rhode Island held on to the use of wampum longer than her neighbors, but the standard was lowered. With this change it continued to be the principal circulating

medium of the colony until 1662, when it was deprived of its legal tender quality and colony revenues were required in "current pay;" that is, in sterling or in New England coin. Massachusetts began to coin silver in 1652. Besides this silver coin there was some other specie in circulation; foreign pieces, Spanish and French, which dropped in from the trade with the West India Islands.

Rhode Island like Virginia, had its disappointment in the matter of the discovery of the precious metal. In 1648 there had been great excitement in consequence of the finding of what was supposed to be gold and silver on Rhode Island. A special meeting of the assembly was called to consider it. An act was passed taking possession of the mines in the name of the "State of England," but the delusion was short lived.

In 1710 on occasion of the second attempt to capture Port Royal (Annapolis), in which Rhode Island joined Massachusetts and Connecticut, the Assembly to meet the extraordinary outlay adopted the plan, already pursued by the neighboring colonies, of issuing bills of credit to the amount of five thousand pounds. This was the beginning of a system of financial mistakes which outlived the colonial existence.

Yet the error is not in the use, but the abuse of paper money. A great financial authority has profoundly said: "Specie does not precede, but follows wealth;" that is to say, a community has not the power to accumulate specie until by the balance of trade in its favor arising from the sale of its product abroad in excess of what it receives from abroad, specie comes to it in settlement. The American colonies and in fact the American states were not specie-producing countries till after the discovery of gold in California and of silver in Nevada in the present century. If any currency is to be redeemed in the precious metal it must be limited in extent; for all currencies are after all but promises to pay in the precious metals, and no matter how rich a country or how secure the ultimate value of such promises, immediate convertibility depends solely on the amount issued. If not beyond the wants of the people there will be no demand for its redemption. What currency a man needs for use in the daily transactions of life he is not likely to present for redemption. It is only the excess of a currency which can find its way to the treasury for redemption in the precious metals.

The colonies being poor and debtor communities, the difficulty in placing funds in England for purchases was constant. The instance related of the assembly of Rhode Island, colony making an "adventure to Barbadoes" to procure funds on London is notable, but by no means an isolated case. Moreover, as the balance of trade with the mother country was always against the colonies no specie came to it from that source; the value of the shipments of American produce being returned in British manufactures. It is not strange therefore to find that the gold and silver coin in circulation were chiefly of foreign origin and of varying value. Clipping was a source of depreciation and constant annoyance.

The London Board of Trade took up the subject in 1708 and endeavored by a circular to the colonies to establish a "uniform value of foreign coins in the colonies, but without success;" for at a much later period their value in New York was regulated from time to time by voluntary agreement among the merchants and traders.

The lesson of freedom from burdensome exactions, as a condition of the growth of trade and in consequence of prosperity to communities whose wealth is derived from this source, was gradually and slowly learned. But in this respect the assembly of Rhode Island was fairly abreast of the times. In 1707 the colony yielded all control over the shore line, whether of the sea or rivers, to the several towns in order

that wharves and storehouses might be constructed and trade thus promoted. At this period the four principal towns were: Newport, "the Metropolitan town," Providence, Warwick and Portsmouth. Portsmouth, the oldest settlement on the island, had been detached from Newport. In 1771, the assembly relieved all river craft trading as far as Connecticut from customs dues and abolished officers' fees on free goods. The annoying system of passports which at one time prevailed all over New England was early abandoned in Rhode Island.

The English navigation laws had long been virtually avoided by an underhand trade, which reached such an extent that the assembly for the protection of its own merchants from this partly illicit, partly itinerant trade, passed a law in the interest of its own people, requiring all temporary residents to give public notice of intention to leave the colony; a certificate of having complied with this requisition was necessary before a permit to embark could be had. Ship-masters were required to hand in sworn manifests and to file bonds in the sum of fifty pounds for faithful observance of the acts. An immigration tax of three pounds for each negro and two pounds for each Indian landed, was required to be paid before landing. In this year also, 1711-12, the first quarantine act in Rhode Island was passed, the immediate object of which was to prevent the bringing in of the smallpox, the scourge of the century, from which Newport had already more than once suffered.

The treaty of Utrecht, which closed the war of the Spanish succession, with the triumph of the principle for which the English had contended since the revolution of 1688, Queen Anne faithfully carrying out the foreign policy of King William, ushered in a new era for western civilization. As Mr. Arnold justly puts it, "trade was to be the battle cry in future contests." Religion was no longer to furnish a pretext or an excuse for war. But though religion was no longer a factor in the rivalry for the colonization and the domination of the western continent, the strife lost nothing in ardor; such is the motive force of national interest. At the peace Great Britain found herself saddled with a great debt. Nothing but an extension of her commerce on a large scale could relieve her from the burden. The genius of the English race has from its beginning been for trade. Its later disposition towards conquest and territorial acquisition is not so much a lust for imperial domain as a desire to secure outlets for manufactures and avenues for its vast marine, in which, since the days of the Armada, England has seen not its interest alone, but the one guarantee of independent national existence.

By the peace of Utrecht Spain lost her grip on the South American continent, the Eldorado of the seventeenth century. By one of the conditions of the peace she transferred to England the contract by which the French-Guinea Company supplied her possessions in South America with slaves. This contract fell to the South Sea Company, which by it agreed to land forty-eight hundred slaves yearly for thirty years in the English colonies. One hundred and forty thousand Africans were thus introduced into the struggling civilization of the western world.

In reviewing the history of the English colonies in America, it must always be held in mind that they were all seaboard colonies, and therefore commercial communities. Their interest, their ambition, were not in the beginning in the settlement of the interior, but in the extension of their external relations, on which they depended for their comforts and for the luxuries of life. Massachusetts never lost sight of the bank fisheries. Rhode Island set its eyes upon the West Indian trade. One of the reasons for the longing of the youth of Rhode Island for sea life and sea adventure, which was early noticed, is found to have been, indeed is stated in an old document to have been, "because all the farm lands of the colony were taken up"

before the close of the seventeenth century. Moreover, the habit was natural to a colony whose territory fronted on seventy miles of water. Yet this condition was not permanent, for in 1713 grain was so scarce that a law was passed forbidding its exportation to foreign countries for a year.

In 1714 the currency question came to a head, and after a hot struggle at the polls, where, it will not be forgotten, that the freeholders, who were limited in number, had alone the right to vote, the hard money or specie party prevailed. This year a public bank was created in Rhode Island, on the model of one originated in Carolina in 1712. Its operations were not what would in this day be classed as banking. It consisted in a five-years' loan of fifty thousand pounds to private individuals. Later the Massachusetts plan was adopted. In 1715, under the banking provision as fixed by the law, thirty thousand pounds, in bills of denominations from one shilling to five pounds, were issued proportionally to the several towns, to be loaned by the authorities to the people for ten years, at five per cent. interest, on mortgage security in double amount. Provision was made for application of a part of the interest-money to the redemption of the principal, the remainder to be for the support of the government. This is known as the "first bank." In a crude way it was the forerunner in the colony of the state bank system which prevailed in the United States until the national bank system was established in 1862.

In countries where specie is scarce and difficult of attainment, land naturally becomes the basis of credit, as of most permanent value, and while a currency issued upon it on a low valuation is secure, it is nevertheless subject to depreciation, and in times of financial panic is of uncertain convertibility.

The inconsistency of the Board of Trade, in view of its claims to eminent authority, in permitting the different colonies to levy duty of their own imposition on importation of foreign merchandise, has been noticed. It took the precaution, indeed, to order that all such acts of the colonial assembly should be sent to England for approval before imposition; but this was apparently a waiver of the original right. It is stated that its order on this subject had never been sent out to the colony, which is not at all unlikely, when the monstrous carelessness and, at times, wilful neglect of the British officials of that period is considered. Indeed, it was not till much later that administration in England was conducted with prudence, judgment or regularity. Many of its faults it has not yet overcome, in spite of its boasted civil service rules.

In 1718 Connecticut, taking advantage of her situation between the great seaports of New York and Newport, made up a custom code of her own, which was injurious to both of her neighbors. That it was in violation of the English acts of trade and navigation was not regarded. Rhode Island complained, and a hearing was had by the Board of Trade in 1722, which decided in favor of Rhode Island, as "morally if not technically right," and recommended as a remedy that both colonies, Connecticut and Rhode Island, end the controversy by surrendering their charters and becoming annexed to New Hampshire. This was not a pleasing prospect for Rhode Island, although insidious in view of the fact that not only was the colony in dispute with Connecticut about their boundary line, but that Massachusetts was literally encamped at Bristol, which it claimed to be under its territorial jurisdiction. Connecticut, however, crisply declined the suicidal proposition.

In 1724 the crops failing, the exportation of grain was again forbidden and Indian corn was purchased at the cost of the treasury; conclusive evidence of the uncertain nature of the home product as a basis for foreign trade. With all these drawbacks the trade of the colony continued to grow. In ten years, from 1720 to

1730, the shipping increased from sixty small vessels of thirty-five hundred tons burden to five thousand tons; consisting of two ships, some brigs, numbers of sloops; and they manned by four hundred men. The supplies of the colony came chiefly from Boston in coastwise vessels. Two ships arrived each year from England, as many from Holland and the Mediterranean, and ten or twelve from the West Indies. The exports, amounting to a value of £10,000 sterling annually, were comprised of horses, for which the colony was quite famous; the Narragansett pacer being especially prized by the West India Spaniards; of live stock, logwood, lumber, fish and farm products.

In 1733 the whale fishery, which had before been confined to an occasional taking in the waters of the bay, was organized on a permanent scale and a bounty offered by the Legislature. The first application was for the sloop *Pelican*, owned by Benjamin Thurston, of Newport, who brought into that port a cargo of one hundred and fourteen barrels of oil and two hundred pounds of whalebone. This industry, which was later to assume great proportions, was begun at Nantucket a few years before by a little fleet of sloops, none over fifty tons burden.

Spain was still a first-rate power. She still claimed sovereignty over the seas. In this assumption she included the right of search. And, indeed, it was difficult for her to secure her interests even in her own colonies, except by its exercise. True the treaty of Utrecht gave her written guarantees on the part of the British government; but, unfortunately for those nations with whom England has commercial contention, Englishmen have never shown much regard for treaty obligation from the time of Queen Elizabeth. Naturally enough the colonists, whose interests had no weight in British diplomacy except as they concurred with British interests, were not more scrupulous, and, moreover, they had with usual provincial exaggeration an inherited religious hatred of the foreigner. The violations of treaty stipulations regulating the trade between England and the Spanish colony alike on the northern continent in the West Indies and on the Spanish main, often at the very doors of the principal Spanish port, compelled the search of vessels known or suspected of being engaged in this contraband trade.

In 1739 a few such interferences with British vessels aroused such a storm in England that war against Spain was declared in a frenzy of popular excitement. This war was to have a far-reaching influence on the destiny of the English-American colonies; an influence directly felt in Rhode Island, whose trade directly with the West India Islands, and indirectly with the coast of Africa, was one of the chief occupations and sources of prosperity of its inhabitants. One of the chief exports in this connection was that of rum, which, with firearms and ornaments, was the main stock of the African slave-trader. This coast trade with Africa was triangular; Barbadoes at first, and later some others of the Windward Islands, being the point at which the outward cargoes were landed and the homeward taken in. Of this return cargo, molasses was the most important, and to convert it into rum numerous distilleries were established at Newport. The importance of this industry being brought to the notice of the Board of Trade an act was passed in 1733, which is generally known as the Molasses Act. It laid a heavy tax on produce imported from the West India Islands, other than English islands, and especially on that from the French islands. Of this act there were constant evasions even during periods of actual hostilities between England and France; by New York, even with the connivance of the governors. Rhode Island protested against the act, which was dealing severe blows to her commerce, and, in fact, this trade supplied the only means by which she could obtain return for her exports. In presenting the protest the agent of the

colony stated the real grounds of it to be that the bill took away the rights of the colonists as Englishmen and taxed them without representation or consent.

Rhode Island seamen soon found in the pending war a more lucrative employment than legitimate commerce afforded. Such was the success of their privateers and so great the number of Spanish prisoners brought into Newport that an act of Assembly was passed to provide for their maintenance.

In 1743 the acknowledgment by Louis XIV. of the claim of the Pretender, Charles Edward, to the English throne precipitated a war with France. French privateers, in their turn, infested the coast, and the entire activity of the colony was exerted to defend the seaports, and in expeditions to break up the French strongholds on the Canadian sea-coast. These closed with the capture of Louisburg by the New England forces, in which Rhode Island was represented, chiefly in the naval contingent. The war with France and Spain was closed by the treaty of Aix, in 1748. Rhode Island returned to her old avocations. In the treaty the right of search claimed by Spain, and which was the pretext for the war, was not even mentioned. The conquests, including that of Cape Breton, were restored on both sides. Louisburg again passed to the French. The Spanish-American trade remained in the hands of its natural owner, Spain.

In this year, 1748, a census was taken. The population was found to be thirty-four thousand one hundred and twenty-eight souls, of whom twenty-nine thousand were white and forty-three hundred and seventy-eight blacks and Indians. Newport had forty-six hundred and forty inhabitants; Providence, thirty-four hundred and fifty-two. The Rev. Dr. McSparran, in his "*America Dissected*," written at Narragansett in 1752, says of Rhode Island: "The produce of this colony is principally butter and cheese, fat cattle, wool and fine horses, that are exported to all parts of the English America. They are remarkable for fleetness and swift pacing, and I have seen some of them pace a mile in little more than two minutes, a good deal less than three. There are above three hundred vessels, such as sloops, schooners, scows, brigantines and ships, from sixty tons and upwards, that belong to this colony; but, as they are rather carriers for other colonies than furnished here with their cargoes, you will go near to conclude that we are lazy and greedy of gain; since, instead of cultivating the land, we improve too many hands in trade. . . . We are a vast advantage to England in the consumption of her manufactures, for which we make returns in new ships, whale oil and bone (which grows in the whale's mouth) and dry fish to the ports of Portugal, Spain and Italy, which are paid for by drafts on London and Bristol merchants.)"

The peace of Aix was at best a suspension of hostilities. It was not to be supposed that France would quietly submit to the mortification she had endured in the capture of Louisburg, even though it had been restored, nor abandon her long cherished policy of connecting her Canadian provinces with her Louisiana territory. Her purpose was to encircle the English seaboard cities with a chain of fortified interior coasts, and with the aid of the Indians whose tribes, with a notable exception of the Mohawks, were always friendly to her—chiefly by the zeal and sacrifice of the Jesuit priests who had pushed forward to and beyond the extreme frontiers of settlement—to dominate the continent. An accident brought about a state of war on the Ohio river in the spring of 1754, and blood was shed at Fort Duquesne, the site of present Pittsburg, long before the formal declaration of hostilities. Thus began what is known in history as the Seven Years' War, and familiarly styled in America The Old French War. Rhode Island, as was her habit, went heartily into the contest by land and sea, and as usual it absorbed the entire energies of the colony. In

1753 three hundred sail of vessels of sixty tons and upwards arrived at Newport, while the continent was still at peace. In 1754 the sea captains of the colony formed an association for mutual assistance under the name of the Fellowship Club. This was the origin of the Marine Society, which was incorporated in 1785.

At the close of 1755 a census was taken by order of the Board of Trade, which showed that the population had increased to forty thousand souls, of which thirty-six thousand were whites. Of these fifteen hundred were later occupied in manning privateers. In fact during this century of nearly unbroken warfare on the American continent, that with Spain, with France and Spain combined and with Great Britain, privateering was the chief occupation of Rhode Island seamen. In its course they pushed their ventures to great distances, though their favorite cruising ground was the Spanish main, with the waters of which and those of the Carribbean sea, they were as familiar as with those of Narragansett bay. So large was the number of private men-of-war sent out by the colony and so great the difficulties which arose in the adjustment of the prizes that the merchants of Providence memorialized the Board of Trade to procure the appointment of a judge of court of vice-admiralty.

In 1755 the first line of packets between England and the colonies was established by the post-office department between Falmouth and New York. Up to 1758, although Boston and New York had, for more than a quarter of a century, a weekly press, Rhode Island had, as yet, no permanent newspaper. In that year the *Newport Mercury*, which "still lives" and thrives, was established, and thenceforth the historian finds more abundant material for a study of the progress of the colony. In 1761 there was a regular packet between Providence and New York, which carried Boston passengers and stopped regularly at Newport on her way. Indeed this was a favorite method, up to the close of the last century, as it has been in this since the introduction of steam, of travel between the eastern and middle colonies and states.

George the Second, "George the Victorious," as he was proudly styled, in the colonies as well as in Great Britain, was the best loved, as he was the most able sovereign of the house of Hanover. His death, towards the close of 1760, and the accession of his grandson as George the Third, brought about a change in British politics. The young king, chafing at the dominant superiority of the great earl of Chatham, the idol of the colonies, refused to carry out the views of that statesman, which aimed at nothing less than driving out both French and Spaniards, that house of Bourbon, which he hated, from every post of vantage in America, whether of the northern or southern continent. But again the war, glorious as it was in its results—the conquest of Canada—had entailed a heavy increase of debt on Great Britain. The home government had resolved to take what could be had from America, and peace was hardly in sight before a surveyor-general was appointed for the northern colonies with orders strictly to execute the acts of trade and navigation. This was followed by the appointment by the London custom-house of a searcher and land-waiter at Newport. But the traffic with the French West India Islands, under the cover of flags of truce, sometimes under direct permits from the colonial governors, and constantly with their tacit connivance, had become a system lucrative to all concerned; to the trader directly, to the officials in their fees, perquisites and "douceurs;" a system too firmly rooted to be easily destroyed. What chance had an English-born official to carry out his orders, with an entire population hostile to him from interests as well as in feeling? Writs of assistance were perforce demanded by them of the colonial authority, and openly resisted by the merchants in the courts. Warrants to search for smuggled goods were laughed at by the captains of vessels, and the aid to the king's officers in their work indignantly refused by the popula-

tion. Resistance, the forerunner of revolution, was already in the air, and the phrase, "the rights of the people," had crystallized the turbulent sentiment into a patriotic feeling.

The determination to force English rule upon the colonies and to compel obedience to the acts of Parliament, regardless of protest, became more manifest after the resignation of Pitt from the king's council, and the definitive conclusion of the peace of Paris in February, 1763. In September, of this year, the Board of Trade sent out a new circular representing that the king's revenues had not increased with the increase of commerce of the colonies; alleging in fact that it did not yield one quarter of the cost of collecting. The circular demanded that all illicit foreign trade be stopped, and that the customs officers be protected in the discharge of their duties. There is no doubt that these complaints were justified by the facts. Strangely enough, however, the opposition in the colonies was not made to the laws, but to their execution.

In the autumn of 1763 a man-of-war was stationed at Newport, "for the encouragement of fair trade by the prevention of smuggling;" but the officers had no sinecure. The famous sugar act, or molasses act, of 1733 expired by limitation in 1764. A remonstrance was made against its renewal by the Rhode Island Assembly, in special session called for the purpose. The very extension of the trade with the French West India Island was made ground-work for a demand that it be left unrestricted. The extent of the foreign trade of the colony is shown by an exhibit taken from the Newport custom-house book, which was spread on the memorial. In the year then elapsed, there were one hundred and eighty-four clearances to Europe, Africa and the West Indies, and three hundred and fifty-two vessels engaged in the coasting trade and fisheries; employing an aggregate of twenty-two hundred seamen.

The cost of the seven years' struggle was enormous. It was found to have doubled the debt of England; increasing it to £140,000,000 sterling (\$700,000,000). It left no alternative between new taxation and national bankruptcy; a situation grave enough for the highest statesmanship, and this the young king, whose sole idea was personal government, had not the knowledge or the temper to secure. The board of trade had long chafed at the spirit with which the colonists disregarded their instructions, baffled their intention and in various ways shown a determination to deny the authority of Parliament in matters of revenue. They now resolved to try the experiment of direct taxation. Information of this fixed purpose was early given to the colonists, by their merchant friends of the Whig city of Bristol. To the colonies, just emerged from a terrible struggle, in which they had borne a manly part, it was a sad blow to their hopes of prosperity. From them it threatened the fruits of the contest were to be withheld.

In 1764 Greenville, in his general scheme of colonial administration, and his determination to raise revenue by taxation, direct as well as indirect, added to the customs-duty a tax on stamps. No commercial or legal document, no contract, was henceforth to be valid without the stamp, and even newspapers were included in the general regulation. The colonies protesting, the Stamp Act was held back for a season, and the agent of the colony invited to suggest a compensation for it. But the Sugar Act was again put in force. The old duty, which had been found impossible of collection, and prohibitory, was reduced to a revenue standard. Other foreign goods were also included in the new tariff, coffee, spices, wines, etc. The export of lumber was forbidden, except to England. The restriction on lumber, however, was relieved the next year, and a bounty put on its importation. The duty on coffee was at the same time lowered.

The passage of this act greatly disturbed the American colonies, and the Rhode Island Assembly appointed a committee of correspondents, to confer with the other colonies. Among the people, the tone was one of exasperation. They would not brook interference with what they had come to consider their rights, even though in contravention of what the English official held correctly enough to be legal acts. English officials have never been distinguished for their courtesy in administration, and the military and naval officers had, in the last century, the same contempt for the people which we find in the Prussians, in similar service in this. Conflicts took place between the inhabitants of Newport and the officers and crews of the man-of-war on the station. One of the king's vessels was even fired upon by an order of the magistrate in 1764. In 1765 the Stamp Act passed the House of Commons by an enormous majority. The story of the successful resistance of the colonies, which brought about the repeal of the measure in 1766, need not be repeated here. It may only be noted that the governor of Rhode Island, alone among the royal governors, refused to take the oath to enforce the act. But the temper of the people was beyond the control of royal governors everywhere. From one end of the continent to the other, the act fell dead. No agent was found to dare to attempt its enforcement. In October, 1765, a congress of delegates, at which nine of the colonies were represented, was held in the city of New York. Rhode Island was represented by commissioners, who were instructed as to their action by the Assembly. In these instructions, complaint is made of "the general decay of trade and commerce, which is so severely felt in all the plantations upon this continent," and, in this connection, the Assembly urged that an address be made to the king, "to procure the restrictions and burden laid upon commerce to be alleviated." The congress adopted a declaration of rights and grievances, and addressed memorials to the king and both houses of Parliament.

Immediately on the conclusion of the deliberation of the congress, on the 31st of October, two hundred of the principal merchants and traders of New York met at the Providence Arms Tavern, and entered into an agreement not to import any goods from Great Britain, until the Stamp Act was repealed. The merchants of the other cities adopted similar agreements, those of Providence taking the lead in Rhode Island. Adherence to this agreement caused such commercial distress in Great Britain, that to its influence the highest authorities have ascribed the repeal of the obnoxious legislation.

Up to 1766 the colonies had dealt with the home government through the channel of the Board of Trade. A new order in council now brought them into immediate communication with the king. The king did not accept the repeal of the Stamp Act as a settlement of the dispute. Parliament had declared its right to tax the colonies at its own pleasure. A class of statesmen now drew a distinction between internal and external taxes. A new proposition for revenue based on this distinction was made. A duty was to be laid on sundry articles; the export duty on tea, payable in England, was to be removed, and an import duty to be levied in America on its arrival. The revenue thus raised was to be devoted to the support of the king's civil service in the colonies. In this manner it was adroitly proposed to avoid the requisition which the assemblies, notably in New York, had granted or denied at their convenience or pleasure. This brought the people face to face with the tax. The effect of the scheme would be also to put an end to all smuggling. Slight as the tax laid on the minor articles of glass, tea, paints, etc., was, its acceptance would carry with it a consent to the principle. To this the colonies were distinctly opposed.

In the spring of 1768 an affray occurred at Newport between some of its people

and the midshipmen of an English man-of-war, in which one of its citizens was killed. The midshipmen were tried and acquitted on the ground of self-defense.

A new parliament met in November, 1768, and fresh troops were detached to America; but, as the non-importation agreements were not treasonable, no law compelling importation, there was nothing for the military to do. Information was received in the summer of 1769 that the revenue schemes were abandoned in England, and that all taxes, except on tea, would be repealed. Meanwhile the annoyance to the coasting trade along Long Island Sound by a British revenue sloop, and the bringing into Newport of two Connecticut craft, caused an altercation, in the course of which the revenue vessels fired on the boats of the Connecticut craft. The captain of the revenue sloop was brought to account by the people, his vessel scuttled and set adrift, grounded on the point. This was the first overt act against British authority.

New York now renewed its non-importation agreement, and called on the other colonies to follow her example. But the harmony which had been before successful in its influence on British legislation no longer prevailed. Yet, as the repeal of the acts excepted the tax on tea, the principle remained at stake. The king insisted "on one tax to keep up the right." The colonies would not surrender one tithe of the right. If ever there were a revolution deliberately entered upon, and for causes just and clearly defined, it was that of the American colonies.

There is little more to be said of the colonial commerce of Rhode Island. In 1769, says Mr. Arnold, "the town of Newport was at the height of its prosperity. The population numbered more than eleven thousand. Industrial enterprises were numerous and varied, embracing extensive manufactures of oil, candles, sugar, rum and hemp. Nearly two hundred vessels were employed in foreign commerce, among which there was a regular line of London packets, and between three and four hundred coasting craft conducted the domestic trade. The town contained seventeen manufactories of sperm oil and candles, five rope-walks, three sugar refineries, one brewery and twenty-two rum distilleries. The number of refineries of molasses shows the extent of the West India trade which, throughout the colonial period, was the mainstay of Rhode Island commerce. The importation of molasses for this purpose reached three thousand hogsheads, brought in sixteen vessels. A large part of these importations were brought in with evasion of a duty. In fact, smuggling was the rule rather than the exception in the West India trade.

Much of the commercial spirit was due to the influence and enterprise of a number of Portuguese Jews, who emigrated from Lisbon after the great earthquake in 1755. . . . This first Jewish colony was reinforced by immigration of rich Jews driven from Portugal on the failure of the great conspiracy of 1759, of which they were accused of being instigators and chief instruments, and for which, though it was a national and not a religious revolt, they were by the office of the Holy Inquisition made the chief sufferers in the terrible public execution and *auto da fe* at Lisbon. But as early as 1750 the Jews were already important merchants in the Rhode Island colony. In 1763 there were more than sixty Jewish families, many of whom were of high standing in the community—men of wealth and commercial enterprise. To them Rhode Island owes the beginning of some important industries.

The manufacture of soap was introduced by one Lucena, a Portuguese Jew, in 1761. Riviera introduced the manufacture of spermaceti, of which Newport had the monopoly before the Revolution. One of the Lopez family, who are found permanently settled at Newport as early as 1750, obtained a patent from the Assembly in 1753 for an improved method of making potash. Such was the enterprise of this

family that it is recorded that two brothers Lopez at one time owned twenty-seven square-rigged vessels, several of which were whale ships, besides many smaller craft.

The manufacture of tar and the raising of hemp was begun on the Russian methods in 1719. A monopoly and a bounty for each bolt of hemp-duck, equal to Holland-duck, was granted in 1722. A premium was offered by the Assembly of six pence for every pound of hemp well-cured and raised in the colony in 1728. This premium was increased to nine pence in 1731. In 1744 these bounties were repealed.

After the Stamp Act trouble, while domestic trade languished and foreign commerce was absolutely stagnant, incident after incident occurred to precipitate the impending struggle between the colonies and the mother country. The most important of these were the street fight on Golden Hill, New York, in the spring of 1770, and the Boston Massacre in the summer of the same year, both of which were struggles with the military force. Next, in order of time, came the burning of His Majesty's schooner, "Gaspee," in June, 1772, in the upper waters of Narragansett Bay. The officers of this man-of-war had exasperated the people by harassing conduct in the enforcement of the revenue acts, an injudicious commander annoying vessels in the bay without reasonable pretext. The destruction of this vessel was deliberate, and only effected after the "Gaspee" had been boarded by an armed force under a regular command and shots exchanged with the British vessel, in which her commander was severely wounded, the crew bound and taken ashore. By this bold act, which was cordially approved by the people, Rhode Island definitely committed herself to the cause of independence.

The experiment of the tea tax was tried by Great Britain in 1773. The destruction of the cargoes in the harbor of Boston took place in December of this year; the closing of the port of Boston by the Boston port bill was the final act of oppression in the succeeding spring. The arrival of the four regiments which were to conquer America, the attempt of the British to seize the stores at Concord, and the fight at Lexington, in April, 1775, were the leading incidents in the rapidly moving drama. Again, as in the old days, Rhode Island bent her energies to naval warfare, and the first beginnings of the naval power of the new nation were undertaken in the waters of Narragansett Bay.

From November, 1774, a British frigate had held the Newport station. But it needed not the presence of this vessel to stop all foreign trade, for upon the advice of the first Continental Congress for the preservation of sheep and the encouragement of American manufacture, the shipment of these animals to the West Indies was entirely stopped.

In 1776 there were already sixteen vessels, some heavily armed and manned, from Rhode Island in the American marine. The names of these are recorded, but there were no doubt many other privately armed craft of various sizes. At this time Narragansett Bay was the haven for the national vessels, as well as for the privateers from other ports. The records of the Admiralty Court at Providence give evidence of their activity in this marine militia warfare.

At the close of this year (1776) a British army of occupation entered the bay on transports conveyed by seven ships of the line. A general exodus of the population followed, among whom a great number of the merchants who had as yet lingered. The Jewish merchants had already removed. The state, which had thrown off its dependence on the crown, in July laid an embargo on all vessels, privateers as well as merchantmen, which had taken refuge up the bay, in order to aid by their crews in the manning of the infant continental navy.

In the summer of 1778 a French fleet, under the Count D'Estang, attempted

the relief of the town, but the hopes of inhabitants of the island were disappointed. After the departure of the French fleet the British remained in occupation till the close of the next year. They left Rhode Island in a sad condition, stripped of its woods, which were cut down for fuel in the hard winter of 1778-79, and its farms ravaged.

Such was the suffering in the colony during the summer in consequence of the embargo on vessels, that the assembly was driven to apply to Connecticut for permission to purchase grain to support the inhabitants.

The arrival of the French fleet with the large contingent military force under Rochambeau, in the summer of 1780, brought a season of comparative comfort to Newport, and indeed to the whole colony, but in the uncertainty of the length of their stay there was no attempt at a revival of trade. The continued presence of the British fleet at their haven on Gardner's Bay, would have itself prevented any commercial venture.

Here the account of the rise and progress of the colonial commerce of Rhode Island properly closes.

In March, 1781, the thirteen colonies now become states by individual declaration, united as the Confederate States of America. The Bank of North America, founded in May, 1782, was the beginning of a national system of finance, which was well received in Rhode Island. But, when in July following, Congress, with the approval of nearly all the states, asked for power to levy a uniform duty of five per cent. on all foreign goods imported, Rhode Island declined her assent to the measure. Her refusal was based on the fact that in consequence of her being wholly a maritime state, she would be left to the mercy of her inland neighbors. Moreover, consent would be a surrender of her sovereignty. And as yet Congress had not settled the question of the interests of the states in the public lands which covered the vast western domain, and were claimed under royal charters by other states, and to which, by her sacrifices in the course of the war, she claimed the right of a proportionate share. This contention of Rhode Island had its influence on other states, and this first attempt to establish the commerce of the country on a national basis fell to the ground. Each state now set up custom-houses of its own, and fixed the tariff on foreign importations to suit what each supposed to be its own interests. All were seaboard states, and each had an entire self-confidence that it could compete with its neighbors. Rhode Island, with a fine seaport, great water expanse, and small landed territory, no doubt considered that she could, by a scale of lower duties, attract the merchandise which the inhabitants of the neighboring more populous colonies must consume. In February, 1783, Rhode Island passed a tariff act "for raising a revenue for support of the state." It levied specific duties and provided for a bonded system. A collector "of excise," as the tariff was termed, was appointed, with his office at Providence. This act was soon after repealed and a new act passed, levying a duty of two per cent. ad valorem, upon all imports, to meet the interest on the state debt. In 1784, the question of the national impost act of five per cent., which was still open in Congress, was again debated in the Rhode Island House of Deputies, and the plan was rejected by a large majority. At the same time, the state duty on foreign goods was raised from 2 to 2½ per cent.

In the winter of 1785 other internal imposts were laid, a part of which to be subject to the order of Congress for the payment of the share of Rhode Island in the interest on the foreign debt of the confederated states; part of this impost to be paid in silver dollars. It should be remembered in this connection that the continental debt of the United States to Holland, principal and interest, was payable in silver Carolus dol-

lars of a fixed weight. The act was to take effect only when the other states had passed similar impost legislation. And under the same proviso of similar legislation by other states, an act was passed giving power to Congress to regulate the foreign trade of the United States. In the autumn, a like power was granted to Congress to regulate domestic trade. Some of the other states refusing to give similar authority, the act of Rhode Island fell of its own tenor. The assembly now, however, passed an act adding to the general duty of $2\frac{1}{2}$ per cent. on foreign goods, an additional impost of $7\frac{1}{2}$ per cent. on all importations in British vessels.

Chary as the states were of their independent sovereignty, the languishing condition of foreign commerce and domestic trade forced the confederated states towards a "uniform system in their commercial regulations."

Virginia led the way to a more perfect union by a call for a convention to meet at Annapolis, in September, 1786. This same year an absurd plan was discussed in Rhode Island to establish "state trade." The state to provide vessels; produce to be taken in payment for taxes; all of which showed the suffering in Rhode Island caused in part by the gradual disappearance of specie from circulation. The convention at Annapolis, which has been styled "a national trade convention," met according to call. The few delegates present adjourned after adopting a report, advising the meeting of a convention at Philadelphia, the next spring, to discuss a plan for the enlarging of the powers of Congress, as well as for the regulation of commerce and trade. The Rhode Island delegates did not reach Annapolis till after the adjournment.

In January, 1787, the Rhode Island impost on foreign goods was raised five per cent., and "an exclusive privilege of a coinage for this state for the period of twelve years was granted." The paper issues of the state had depreciated until \$6 in paper passed for \$1 in silver. In April of this year the governor of the state was made sole arbiter of trade and commerce with power to appoint deputies at the ports to act as intendants of trade. During the colonial period the naval officers were appointed by the governors. They have since been chosen by the assembly. A return was now made to the old system.

In June a motion to appoint delegates to the Philadelphia meeting, which was now known as the federal convention, was defeated. In July all the states were represented except Rhode Island. But in spite of opposition the federal party was now firmly organized, and after a three years' struggle brought Rhode Island into the Union.

A new commercial area had now opened for the United States. On Washington's birthday, 1784, the "Empress of China" sailed from New York for the Celestial Kingdom. This vessel was the first of a fleet which in a few years matched the merchant marine of England in the seas of the Orient. The success of this first adventure attracted New England spirit, and this lucrative commerce for a long period added to the wealth of Salem and of Providence. The first vessel from Rhode Island engaged in this trade was the "General Washington," which cleared from Providence on the 19th of December, 1787. The last clearance and the last arrival were in 1841.

The organization of the new government under the Constitution adopted at Philadelphia and ratified by the prescribed number of states was completed by the inauguration of Washington in New York on the 30th of April, 1789. North Carolina and Rhode Island had not ratified the Constitution and were not represented. The first business of Congress was to provide revenue by an impost on foreign goods. Rhode Island and North Carolina being outside of the Union were treated as foreign states, and all foreign goods coming from them were subject to duty. Her isolation

was no longer of any benefit to her. An attempt at compromise was made by the passage of a new impost tax by her legislature, which adopted all federal imposts and duties and authorized their collection in a manner similar to that ordered by Congress. But this instead of a relief was an additional burden to commerce. It limited the importation of foreign goods to the quantity required for consumption within the limits of the state. In its details this impost act followed the congressional model. The state was divided into two districts; Newport and Providence were made ports of entry and delivery, the other seaports of delivery only. Drawbacks of duty were allowed on rum, sugar and chocolate manufactured in the state on exportation.

The shipping owned in Providence at this time amounted to one hundred and one vessels, exclusive of river craft, aggregating nearly ten thousand tons, three-quarters of which were engaged in foreign trade or in whaling voyages. A persistence in a policy of isolation threatened the commerce of the state, which was just recovering from its long stagnation with utter ruin. The merchants of the seaports petitioned the assembly for action. Congress patiently exempted the vessels of Rhode Island and North Carolina from foreign tonnage or impost dues, thus leaving them on an equal footing with the ships of the states of the Union. Washington, on his tour through the Eastern states, significantly avoided setting foot on Rhode Island.

In November North Carolina ratified the Constitution, but it was not until the 29th of May, 1790, that Rhode Island, last of the states, adopted the instrument and became one of the United States.

In 1790 the River Machine Company, incorporated to keep Providence river free from obstruction, and authorized to collect a tax on vessels above a certain burden for this purpose, made a report on the commercial statistics at Providence. According to that exhibit there were then owned in the port of Providence one hundred and ten sails of ten thousand, five hundred and ninety tons, exclusive of river craft. In a petition made to Congress, after the state joined the Union, for a continuance of their privilege to assess harbor dues, the company stated: "There is a greater number of vessels belonging to this port than to New York" and that "it is a place of more navigation than any of its size in the Union." The population of Providence was then six thousand, three hundred and eighty souls, and of the state, sixty-eight thousand, eight hundred and twenty-five.

The history of commerce in Rhode Island shows that a great port is not sufficient of itself to insure a permanent growth. Had the pioneers of Massachusetts Bay known of Narragansett Bay, there might have been no Boston and the supplies of the back settlements of New England have been drawn from the Narragansett port. Had it not been for the large immigration which the fertile valley of the Mohawk invited to New York territory, the shipping of Providence might have been continued to rival in number that of the great commercial metropolis of the new world. But the reason for the increase of the importance of Providence and the decline of that of Newport, which was long "the metropolitan city" of the state, must be sought in another direction—the rise of manufacturing industries.

It has been shown with what jealousy Rhode Island guarded her manufactures and welcomed the introduction of new industries. In 1786 cotton spinning had its beginning in America. The legislature of Massachusetts contributed to aid in the production of suitable machinery. A company was formed in Providence and the first spinning jenny constructed on this side of the Atlantic was made by them. In December, 1790, some Providence capitalists set up a factory on the Pawtucket river,

and, in the words of an intelligent historical student, "the destiny of Rhode Island was decided."

Last of the important commercial events of the century was the founding of the Providence Bank in 1791, the first institution of this kind in Rhode Island. The Bank of Rhode Island, the first in Newport, was founded in 1795. The closing years of the eighteenth century were years of prosperity to the general shipping interests of the United States. The tonnage of vessels entered at the several ports of the United States for the year ending September, 1790, were stated by Hamilton, the first secretary of the treasury, in his report at 268,622 foreign and 492,100 United States tons (of which in the coasting trade 120,000 tons), Massachusetts leading with 195,000, Pennsylvania a close second, Virginia third, and New York fourth with 9,639 tons. Rhode Island was already out of the race. At the close of 1798 the United States tonnage had risen to 939,408 tons, of which 662,197 were engaged in the foreign trade, the remainder coastwise and in the fisheries. New York had already reached the first place. Nothing more clearly shows the disastrous effect of the war and the incidental ruin of Newport than the lack of participation by her shipping merchants in this great national prosperity, caused by the transfer of the carrying trade during the continental struggle of Europe to American bottoms.

This abnormal and extraordinary development was, however, arrested by the embargo act of 1804 and the subsequent act of non-intercourse under the operation of which the commerce of the country languished for eight years while American vessels by the hundreds lay idle at the wharves of the great seaports and thousands of mariners were turned adrift without employment.

But for the cotton manufactory and the happy fortune of the great river which opens into its magnificent bay Rhode Island would have had a sorry struggle for existence. The introduction of power looms in 1817 gave an additional impulse to the cotton and woolen industries, and these manufacturers have kept the state well abreast in the application of all the modern inventions.

He who would seek a summary review of the progress of this state should read the admirable report of the commissioners of Rhode Island to the World's Columbian Exposition. Here it is found that "over one-half of the capital of Rhode Island is invested in the cotton industry and that one corporation, the largest in the world, renders its dozen villages musical with the hum of four hundred and twenty-one thousand spindles and makes them beautiful by the happiness of more than seven thousand operatives. And not to mention other minor industries, in Providence there are one hundred and sixty-seven establishments of jewelry manufacture in which \$10,000,000 capital are invested, while in that of silver it stands at the very head of this fine art.

Will the state ever recover its commercial importance? Certainly not until commerce offers an equal inducement for the employment of capital. It is quite the fashion for Americans to mourn over the loss of the carrying trade, and it is surely not gratifying to national pride to note the gradual decline of American shipping. The recent magnificent naval constructions are proof that the ability to build iron ships equal in speed and power to any in the world is not wanting in the United States. But capital will not seek this mode of investment until it shall be shown that it may thus earn more or as much as in other modes. Since the close of the Civil War the entire energies of the United States have been devoted to the extension of its railroad system. It is within the memory of middle-aged men that corn was burned for fuel for lack of means to transport it to the interior markets. And within the last five years there has twice been a blockade of cars at the wheat trans-

portation centres which taxed the concentrated power of the great railway lines to break.

The United States is one of the greatest food-producing countries in the world; and its enterprising men have long seen that the best way to promote its prosperity was to use its capital in increasing and cheapening transportation from the interior to the seaboard; where it needed not great wisdom to foresee that whether or not American vessels were ready to carry the product thus transported across the ocean, yet no barrel of pork, no bushel of wheat, would lack a carrier. When capital no longer finds railroad investments profitable it may turn again into ocean channels. With a return to the wise system of reciprocal trade with the Central and South American states, Rhode Island merchants may see an opportunity to revive their old commercial relations with these sunny shores. Only a system of exchange of articles must be established as a basis for a regular line of steam communication. Cotton goods, jewelry, sewing machines will find a quick market among Spanish-Americans, and return cargos of fine woods which grow in great beauty and in infinite variety in those southern latitudes, and fruits for the New England market would seem to warrant such an undertaking. Then perchance the collectorship at Newport will no longer be a sinecure, and Rhode Island again takes her place among the commercial communities.

There are no very late figures accessible to show the march of decline in shipping and commerce. The last printed state census of Rhode Island was of the year 1885; that taken last year is not ready for publication. The following figures are taken from the census of 1885; those of the even decades being selected:

CUSTOM RECEIPTS AT THE PORT OF PROVIDENCE.—1800, \$284,037.28; 1810, \$330,125.53; 1820, \$119,617.31; 1830, \$99,865.18; 1840, \$75,161.73; 1850, \$23,077.66; 1860, \$36,175.19; 1870, \$231,915.15.

ARRIVAL OF VESSELS 1885.—147 vessels, 38,245 tons. CUSTOMS RECEIPTS 1885.—Foreign bottoms, 59; American bottoms, 27. Total receipts, \$193,356.93.



CHAPTER CLXXII.

THE MEDICAL HISTORY OF THE COLONY AND STATE OF RHODE ISLAND.

BY GEORGE D. HERSEY, M.D.

BIOGRAPHICAL SKETCHES OF EARLY PHYSICIANS.



HERE were but few physicians among the early settlers in Rhode Island, and but few came into the colony during the seventeenth century. As population increased, the demand for medical men exceeded the supply, and the General Assembly remedied this condition by licensing practitioners of reputed ability. In the case of Captain Cranston, the Assembly not only issued a license to practice, but also conferred upon him a medical degree. This act was passed at a session of the General Assembly, held at Newport in 1664, and reads as follows :

"Whereas the Court have taken notice of the great blessing of God on the good endeavors of Captayne John Cranston of Newport, both in phisicke and chirurgery, to the great comfort of such as have had occasion to improve his skill and practice, &c. The Court doe therefore unanimously enacte and declare that the said Captayne John Cranston is lycenced and commitioned to adminester phisicke, and practice chirurgery throughout this whole collony, and is by this Court styled and recorded Doctor of Phisick and Chirurgery, by authority of this the General Assembly of this Collony."

These early practitioners were not devoted to one profession, but were also interested in preaching politics, farming, trading, etc., as might be expected in pioneer settlements. As the colony grew in population and wealth, educated physicians settled here, and from 1720 to the period of the Revolution there was an increasing number of men who gave exclusive attention to medical practice. Following are biographical sketches of a few of these men, who before the days of medical societies, dispensaries and hospitals, constituted the medical profession of Rhode Island.

Among the older Rhode Island towns Newport was distinctly prominent in the number and quality of her physicians.

DR. JOHN CLARKE, who had first settled in Boston, arrived in Portsmouth, the north part of the island, in 1638, and removed to Newport the following year. He was a man of affairs, deeply interested in the prosperity of the colony, and also a preacher, being the first pastor of the First Baptist Church in Newport. In 1651 the colony appointed Mr. Roger Williams, of Providence, and Dr. John Clarke, of Newport, to proceed to England to procure a repeal of Coddington's commission constituting him governor for life of the islands in Narragansett Bay. This they accomplished in 1652. Mr. Williams returned with the revocation, but Dr. Clarke remained twelve years in London as the agent of the colony and as a practicing physician. In this time he procured the charter of Rhode Island, granted by

Charles II. in 1663, which remained in force until superseded by the present state Constitution in 1842. Dr. Clarke afterwards returned to Newport, where he again officiated as pastor of the Baptist church, and continued the practice of medicine until his death in 1676. He published in 1652, "Ill Newes from New-England," a tract of some historical importance, as illustrating the lack of sympathy and co-operation between Rhode Island and the Bay colony.

DR. THOMAS RODMAN came to Newport in 1680, being then a young man about thirty-three years of age. The town encouraged him to settle there by a grant of land. He remained in active practice in Newport until his death in 1727, in his eightieth year. His son, DR. CLARKE RODMAN, succeeded to his estate and practice, and was for many years a well-known Newport physician. The Rodmans were men of social tastes, and entered heartily into the convivial life of the prosperous commercial town.

NORBENT FELICIEN VIGNERON, a well-educated young French physician, came to Newport in 1690, and soon became a popular practitioner, well-known throughout the island. He died in 1764 at the advanced age of nearly ninety-five years, having been in constant practice in one place for nearly three-quarters of a century, probably the longest professional career of any Rhode Island physician.

CHARLES ANTONIO VIGNERON, son of Norbent, was born in Newport, studied with his father, and acquired a large practice. He had five sons and three daughters. He died in New York in 1772 of small-pox by inoculation, at the age of fifty.

DR. JOHN BRETT, from Germany, a pupil of Boerhaave, should also be mentioned among the early physicians in Newport. His name appears in 1750 as a donor of books to the Redwood Library.

DR. WILLIAM HUNTER, an Edinburgh graduate, a relative of the famous John Hunter, and a pupil of the elder Munro, arrived in Newport soon after 1750, having previously served in the British army. He was an accurate anatomical surgeon of greater operative skill than most of his contemporaries, and the first male obstetrician in the colony. He gave courses of lectures on anatomy in the court-house in Newport in the winters of 1754-5-6, and these were the first public lectures of the kind in the American colonies. Dr. Hunter was a man of scholarly tastes, and had the largest medical library in the province.

DR. JOHN HALLIBURTON, the surgeon of a British frigate, arrived in Newport about 1750. He resigned his commission, married Miss Brenton, and acquired a lucrative practice. Dr. Halliburton remained loyal to the king in the midst of a rebellious community, and in the early days of the Revolution became unpopular on account of the suspicion that he secretly assisted the British. He followed the British army to New York after the evacuation of Newport, and was appointed surgeon to a hospital in Halifax, where his family joined him the next year. He died in 1807.

DR. THOMAS MOFFAT came from Scotland to Newport about 1750. He was highly educated, but appears not to have had a large practice. He served as librarian of the Redwood Library for two years, 1750-1752, and had several medical students, one of whom, Isaac Senter, became well-known. Seeing the large amount of snuff annually imported from Glasgow, Dr. Moffat determined to raise tobacco and grind snuff himself. Writing to Scotland, he secured the assistance of Gilbert Stewart, an experienced mill-wright, and the snuff-mill was set up on a stream in Narragansett. Stewart married and built a house in South Kingstown near the mill. His third child, Gilbert, born in 1756, became the famous portrait painter.

Dr. Moffat was a strict loyalist, and in 1765 was appointed by the crown one of

the three stamp-masters of the colony. The indignation of the mob against the Stamp Act was directed against the stamp-masters, and his house was attacked, the doors and windows broken and furniture destroyed. He continued in practice until 1772, when his strong tory principles drove him from Newport.

DR. SYLVESTER GARDINER, the fourth son of William Gardiner, was born in South Kingstown in 1717. A boy of delicate constitution, his father foresaw that he could never become a robust Narragansett farmer and yielded to the suggestion of Rev. Dr. McSparran that the lad be sent away and educated. He was accordingly placed in Boston to complete his primary education, and there his attention was turned to the study of medicine. His ambition to study abroad was gratified. He was sent to England and France, where he enjoyed the best advantages for eight years and returned to Boston well informed in the medical science of that day. By a lucrative practice and engaging in a successful import drug trade he accumulated a large fortune. He invested heavily in Maine lands, but lost this part of his property, for, being a firm loyalist, he fled to Nova Scotia at the breaking out of the Revolution and his lands were confiscated and sold. After the close of the war he returned and settled in Newport, where he continued the practice of his profession until his death in 1786.

DR. ISAAC SENTER, a native of New Hampshire, came to Newport in early life to study medicine under Dr. Thomas Moffatt. He was a diligent medical student, but in politics did not follow the ultra-loyalist teachings of his preceptor, and when the first troops were enrolled, at the breaking out of the Revolution, he enlisted and was commissioned surgeon. He went with the ill-fated Arnold expedition, through the Maine and Canadian forests, to Quebec, in November and December, 1775, was taken prisoner and afterwards released. He married a Miss Arnold and settled in Pawtucket, in 1779, but later removed to Newport, where he acquired a high reputation as the successor of Hunter and the older physicians who had either died or moved away during the war. He was the earliest writer of note among Rhode Island physicians, and contributed four articles to the first volume of transactions of the Philadelphia College of Physicians, published in 1793. He had many pupils. Dr. Senter kept abreast with the medical literature of his day, and accumulated a valuable library which was preserved intact after his death. He was an honorary member of medical societies in Edinburgh and London, and of the Massachusetts Medical Society, and was president of the Society of the Cincinnati in Rhode Island. He died of some acute illness in 1799, in the forty-fifth year of his age.

DR. JONATHAN EASTON began practice in Newport about 1765, and continued there uninterruptedly for nearly fifty years. He wore the regulation Quaker dress, used the plain language, and in accordance with the principles of the Friends, took no active part in the exciting political and military strife of his times. He was the first physician in Rhode Island to inoculate for small-pox, beginning the practice in 1772. He was one of the original Fellows of the Rhode Island Medical Society.

DR. BENJAMIN MASON, who was educated in Europe, was also one of the prominent Newport physicians of the eighteenth century. He acquired a large practice and had many students.

In Providence and the north part of the colony we find no record of a resident physician prior to 1700. The inhabitants had, however, the services of Dr. Richard Bowen, who lived two miles east of that part of Rehoboth now known as East Providence. His son, JABEZ BOWEN, settled in Providence soon after 1700, and was the first of a long line of physicians of that name, who, for more than a century, main-

tained the highest professional reputation. Among the most prominent of this family were Dr. Ephraim Bowen, who died in Providence in 1812, at the great age of ninety-six, and his two sons, William and Pardon Bowen, each of whom was president of the Rhode Island Medical Society.

DR. JOHN WALTON settled in Providence early in the century. After practising several years he entered the ministry and preached to a Baptist congregation. His friend, Gov. Joseph Jenckes, in a letter dated March 9, 1730, refers to Dr. Walton as favoring singing in public worship, though "he would not urge it as a duty."

Another clerical physician was DR. JOHN BASS (Harvard, 1737), who succeeded Mr. Josiah Cotton as pastor of the First Congregational Church, serving from 1752 to 1758, when he resigned, and devoted himself exclusively to the practice of medicine. He died in 1762.

DR. ROBERT GIBBS was born in Boston in 1700, and died in Providence, where he passed his professional life, in 1769. He was well-educated, and took a deep interest in all public affairs. He was active in securing the lay-out of Benefit street and other highway improvements. It is worth noting that his is the only Providence name in the list of subscribers to the life of Cotton Mather, Boston, 1729. He had many medical students, and was probably the first physician in Providence to make post-mortem examinations and dissections illustrating anatomy.

DR. DAVID VANDELIGHT was a graduate of the school at Leyden, where he was a pupil of Boerhaave. He was a brother-in-law of Nicholas Brown, whose liberality greatly benefited Providence and the college. Dr. Vandelight engaged successfully in mercantile adventures, importing great quantities of drugs, as well as paints, oils and dye-stuffs. He occupied a well-built house, which is still standing, on South Main street, between College and Hopkins streets. He died in 1755.

DR. AMOS THROOP was born in Woodstock, Conn., in 1735. His father, a Congregational minister, died the same year, and the son grew up under the care of relatives. Much of his boyhood was passed in Bristol, where his father had lived, and where the schools were excellent. He found a congenial home in the household of Dr. Jabez Bowen, of Providence. Here his attention was turned to the study of medicine, and he grew up in the midst of a busy professional life. He enjoyed the friendship of Dr. Robert Gibbs, studying anatomy under his supervision, and spent one winter in Philadelphia attending lectures at the medical school then recently founded. His professional career began soon after Dr. Bowen's death in 1770. He was appointed town-physician, and was active in organizing the small-pox hospitals in 1774-76. He carried on an extensive trade in medical supplies, and furnished the state with medicines and surgical dressings used in the army during the Revolution. Dr. Throop was active in town affairs, and was several times elected to the state legislature. He was in politics a warm Federalist, and in religion a generous member of King's (now St. John's) Episcopal Church. He was the first president of the Rhode Island Medical Society (1812), and died in office, April 13, 1814. His portrait, painted by Ralph Earl, is now in possession of the society.

WILLIAM BRADFORD, fourth in descent from William Bradford, of the Plymouth colony, was born in 1729. His studious habits early inclined him to a professional life, and, selecting medicine as a promising field, he was placed under the care and instruction of Dr. Ezekiel Hersey, of Hingham, an eminent physician and teacher, and a generous benefactor of Harvard College.

In 1751, Dr. Bradford married Mary, daughter of Dr. Lazarus Le Baron, of Plymouth, and settled in Warren, but afterwards removed to Bristol. Energetic and enthusiastic, he soon acquired a large practice. Becoming interested in public

affairs, he was led to study law, and was of great service to the town and the colony during the trying period of the Revolution. He represented Bristol in the General Assembly as early as 1761, and was continually in public life for thirty years. He was elected deputy-governor in October, 1775, and served until May, 1778, when he declined a re-election. The thanks of the assembly were given to him for having discharged the duties of his station "with patriotic zeal, firmness and intrepidity at a time of great public danger, difficulty and distress." In 1790, he was an active member of the convention that adopted the Constitution.

Dr. Bradford owned a large estate on Mount Hope, where he passed the last years of his industrious and useful life. He died in 1808. He had seven children, one of whom, Hersey Bradford, was named after his esteemed instructor and friend in Hingham.

Dr. JOSHUA BABCOCK was born in Westerly, graduated at Yale College in 1724, and practised in his native town until his death in 1783. He was the first educated physician in Westerly. He was industrious, frugal, devoted to his profession and to mercantile pursuits, and accumulated property. His large house on the post-road, where Franklin was an occasional guest, is still standing. Dr. Babcock was one of the original Fellows of Rhode Island College, 1764, and was frequently in public life.


Dr. JOSEPH TORREY, a clerical physician, came from Boston to South Kingstown about 1730. He was ordained pastor of the Presbyterian Church there in 1732, and had a series of law-suits with Rev. Dr. McSparren, over the title to the ministerial lands in the Petaquamscut purchase. He was a man of great endurance and activity, and though he had for fifty years a hard and extensive ride, he invariably attended to his ministerial duties on Sunday. He died in 1783, leaving ten children—five sons and five daughters.

CHAPTER CLXXXIII.

THE MEDICAL HISTORY OF RHODE ISLAND—Continued.

MEDICAL EDUCATION—MEDICAL SOCIETIES.

MEDICAL EDUCATION.

URING the colonial period Rhode Island had no medical or other professional school. Dr. William Hunter gave public lectures on anatomy in Newport in 1754-56, and Dr. George Gibbs is said to have given similar instruction to a few private pupils in Providence, but there was no institution where the various branches of medical science could be methodically studied. Attendance at medical schools in distant cities was expensive, and medical students were usually apprenticed to some well-known physician for a term of three or four years, sometimes longer, and then began practice, having only their preceptor's certificate of qualification.

At the close of the last century, there were only two medical schools in New England, the Harvard School in Boston, and the Dartmouth School in Hanover, N. H. A demand for convenient facilities for study appears to have favored the opening of local medical schools in numerous places, and Providence had the first of these

new schools. The medical department of Brown University was established in 1811, and discontinued in 1828. Dr. Solomon Drown was professor of *Materia Medica* and Botany; Dr. Levi Wheaton, of Theory and Practice of Medicine; Drs. William Ingalls and Usher Parsons were successively professors of Anatomy and Surgery; Dr. William C. Bowen, at the opening of the school, was professor of Chemistry. The medical school occupied the brick building at the top of College street, now known as the University Grammar School. During the seventeen years of its existence, this school graduated about ninety physicians. Among them were Dr. L. L. Miller (1820), who became eminent as a surgeon; Dr. George Capron (1823), for half a century a popular physician in Providence; Dr. Hiram Allen (1825), who settled in Woonsocket, and became a prominent physician and citizen; Dr. J. V. C. Smith (1818), mayor of Boston in 1854, and for many years editor of the Boston *Medical and Surgical Journal*; Dr. Alden March (1820), who spent his useful life in Albany, where he was distinguished as a surgeon and medical teacher; and Dr. Elisha Bartlett (1826), eminent as a medical and philosophical writer, and as a teacher in several medical schools.

Brown now offers a course of four years preparatory to the study of medicine, giving special prominence to modern languages, physics, botany and comparative anatomy.

MEDICAL SOCIETIES.

THE RHODE ISLAND MEDICAL SOCIETY.—Though not incorporated until 1812, efforts to organize the physicians of the state into a body were made at least twenty-five years before. The project was defeated, owing to the prejudice against class-legislation. Interest in medical progress continued, however, and the ranks of the profession were recruited from a class of well-educated, self-reliant men. These men, distributed throughout the state, rather than concentrated in a few large towns, kept an increasing influence on the members of the General Assembly, which, in February, 1812, granted the act of incorporation.

The charter named forty-nine physicians as constituting the Rhode Island Medical Society. The first annual meeting was held in Providence in September, 1812, and during that year fifteen new members were elected. The list of Fellows, published that year, shows these sixty-four members to have been resident in twenty-two towns, as follows:

Bristol, Drs. Lemuel W. Briggs, Chillingsworth Foster, Thomas Nelson, Thomas Warren; Burrillville, Drs. Eleazar Bellows, Jr., Levi Eddy; Cranston, Drs. Comfort A. Carpenter, Samuel Hudson; Coventry, Drs. Cyril Carpenter, Thomas O. H. Carpenter, Stephen Harris, Sylvester Knight; Cumberland, Drs. Abraham Mason, Nehemiah Potter, Micah Walcott; East Greenwich, Drs. Charles Eldredge, Thomas Tillinghast, Henry E. Turner, James Turner, Peter Turner; Foster, Dr. Solomon Drowne; Gloucester, Drs. Eleazar Bellows, Hazael Peckham, Augustus Torrey, A. Waldron; Johnston, Dr. Moses Mowry; Newport, Drs. Benjamin W. Case, Jonathan Easton, Jonathan Easton, Jr., Enoch Hazard, David King, William Turner, Edmund T. Waring; New Shoreham, Dr. Aaron C. Wylley; North Providence, Dr. Niles Manchester; North Kingstown, Drs. Jonathan E. Hazard, William G. Shaw; Portsmouth, Dr. John W. Richmond; Providence, Drs. Thomas M. Barrows, Horatio G. Bowen, Pardon Bowen, William Bowen, William C. Bowen, John M. Eddy, Jacob Fuller, John Mackie, Joseph B. Pettes, Amos Throop, Walter Wheaton, Levi Wheaton; Scituate, Drs. Peleg Clarke, Jeremiah Cole, Caleb Fiske, Rowland Greene, John Wilkinson; Smithfield, Dr. Eleazar Bellows; South Kingstown, Drs. John

Aldrich, Ezekiel Comstock, Joseph Comstock; Tiverton, Dr. William Whitridge; Warren, Drs. Daniel Barrus, Jeremiah Williams; Warwick, Dr. Groton Jerauld; West Greenwich, Drs. Stephen Allen, Wilbour Tillinghast.

DR. AMOS THROOP was named in the charter as the first president. He died in office in 1814, in the seventy-ninth year of his age.

At the first meeting the members adopted the name, "Fellows" and this title is still applied to members of the society.

For many years the annual meeting was held alternately in Newport and Providence, and it is interesting to note as indicating the cordial relations between the medical society and the college that the by-laws of 1812 provided that the annual meeting "when in Providence, shall be holden on the Tuesday next preceding the Commencement of Brown University." The annual meeting is now held in Providence on the first Thursday in June. Quarterly meetings held in March, September and December are devoted to reports of cases and the reading and discussion of papers. The meeting in March is also the business meeting, when the annual reports are presented, officers elected, etc.

THE LIBRARY AND MUSEUM.—At the first annual meeting Dr. William C. Bowen, of Providence, was elected librarian and cabinet-keeper, indicating that the founders of the society regarded a medical library and museum as essential to medical progress. No considerable donation of books is recorded until 1824, when Dr. Caleb Fiske, of Scituate, gave his valuable medical library to the society. As no provision was made for the purchase of new books, and as the standard medical works of one generation became obsolete to the next, this collection of books became less and less useful, and in 1868 the books and specimens belonging to the society were given to the Rhode Island Hospital.

In 1879 interest in the library had so far revived that a committee of five was elected to have charge of this important enterprise. Drs. T. Newell, W. E. Anthony, O. C. Wiggin, H. G. Miller and G. D. Hersey constituted the first library committee.

The following table shows the annual growth of the Society's library :

1879-1880	600 vols.	1888-1889	500 vols.
1880-1881	993 "	1889-1890	713 "
1881-1882	501 "	1890-1891	611 "
1882-1883	409 "	1891-1892	396 "
1883-1884	1083 "	1892-1893	604 "
1884-1885	1007 "	1893-1894	332 "
1885-1886	1037 "	1894-1895	350 "
1886-1887	1014 "	1895-1896	499 "
1887-1888	556 "		

Total in seventeen years,

11,205 vols.

An average annual increase of 659 volumes.

This important collection consists principally of files of medical journals, society transactions, hospital reports and state reports concerning sanitary science and public health. The library is in Arnold's Block, 54 North Main street, Providence, and is open daily from two to six P.M.

Catalogues and indices, rare or costly books and volumes of plates are not to be taken from the library, but current periodicals and certain bound volumes may be taken out, and on request are sent by express to Fellows who cannot conveniently visit the library. The faculty and students of Brown University, lawyers, teachers,

hospital internes or other persons interested in medical, psychological, medico-legal or statistical subjects may use this library for reference.

The society's museum, William J. McCaw, M.D., curator, is kept in the museum of Brown University. It includes several hundred anatomical and pathological specimens, carefully labeled and so arranged as to be convenient for comparison and study.

DR. CALEB FISKE, the fourth president of this society (1823-1824), whose gift of books has been noticed above, left the society by will the sum of two thousand dollars as a fund from the income of which prizes were to be offered annually for essays on medical subjects. This was the origin of the present Caleb Fiske Fund. It is administered by the president and two vice-presidents of the society. From the income of this fund premiums have been awarded as follows :

CALEB FISKE PRIZE ESSAYS.

1835-1891.

1835. I. What are the causes and nature of Rheumatism, and the best mode of treatment to be employed therein? Award of forty dollars to Thomas H. Webb.

II. What are the causes and nature of Purpura Hemorrhagica, and the best mode of treatment to be employed therein? Award of forty dollars to David King, M.D., of Newport.

1836. III. What are the causes and nature of Cholera Infantum, and the best mode of treatment to be employed therein? Award of forty dollars to David King, M.D., of Newport.

IV. What are the nature and best mode of treatment of Delirium Tremens? Award of forty dollars to Jacob Fuller, M.D., of Providence.

1837. V. What are the causes, nature and best mode of treatment of Scarlatina Anginosa? Award of forty dollars to Jacob Fuller, M.D.

1838. VI. What are the varieties and best mode of treatment of Erysipelas? Award of fifty dollars to David King, M.D., Newport.

1841. VII. What are the causes, character and nature of the diseases of the spine, both structural and functional, and what is the best mode of treatment to be employed in each? Award of one hundred dollars to Usher Parsons, M.D.

1842. VIII. What are the causes, character, nature and best mode of treatment of Asthma? Award of fifty dollars to Joshua B. Chapin, M.D., Providence.

1844. XI. Tenotomy; its comparative advantages and disadvantages? Award of fifty dollars to Joshua B. Chapin, M.D., Providence.

X. The best mode of treating, and the best apparatus for the management of fractures of the thigh. Award of fifty dollars to William E. Coale, M.D., Boston.

1847. XI. *Vis Medicatrix Naturæ*; how far should it be relied on in the treatment of diseases? Award of fifty dollars to C. W. Parsons, M.D., Providence.

1848. XII. Ship fever; its nature and best modes of treatment. Award of fifty dollars to Henry Grafton Clark, M.D., of Boston.

1849. XIII. The history of Medical Delusions of the present and former times. Award of fifty dollars to Worthington Hooker, M.D., of Norwich, Conn.

1850. XIV. Homeopathy, so called; its history and refutation. Award of fifty dollars to Worthington Hooker, M.D., Norwich, Conn.

1851. XV. Displacement of the Uterus; its local and constitutional effects, and best mode of treatment. Award of fifty dollars to J. F. Peebles, M.D., Petersburg, Va.

1853. XVI. Neuralgia; its history and best mode of treatment. Award of fifty dollars to C. W. Parsons, M.D., Providence.

1854. XVII. Croup. Award of fifty dollars to Albert Newman, M.D., Attleboro, Mass.

XVIII. Effects of climate on tubercular disease. Award of one hundred dollars to Edwin Lee, M.D., of London.

1855. XIX. Does pregnancy accelerate or retard tubercular disease in the lungs, in persons predisposed to this disease? Award of one hundred dollars to Edwin Warren, M.D., Edenton, North Carolina.

1856. XX. What are the causes and nature of that disease, incident to pregnancy and lactation, characterized by inflammation and ulceration of the mouth and fauces, by anorexia and emaciation and diarrhœa, and what is the best mode of treatment? Award of one hundred dollars to David Hutchinson, M.D., Mooresville, Ind.

1858. XXI. The effects of the use of alcoholic liquors on tubercular disease, or in constitutions predisposed to such disease; supported by facts, presented, as far as possible, in statistical form. Award of two hundred dollars to John Bell, M.D., of New York.

1860. XXII. Diphtheria; its nature and treatment. Award of one hundred dollars to Daniel D. Slade, M.D., of Boston.

XXIII. The morbid effects of the retention in the blood of the elements of the urinary secretion. Award of one hundred dollars to William W. Morland, M.D., of Boston.

1861. XXIV. Aneurism, its varieties and treatment. Award of one hundred dollars to Daniel D. Slade, M.D., of Boston.

XXV. Ozone, its relations to health and disease. Award of one hundred dollars to E. S. Gaillard, M.D., of Baltimore.

1864. XXVI. Gun-shot wounds, particularly those caused by newly-invented missiles. Award of one hundred dollars to Alexander R. Becker, M.D., of Providence.

1869. XXVII. Bromides; their physiological effects, and Therapeutical uses. Award of one hundred dollars to Roberts Bartholow, M.D., of Cincinnati, O.

1878. XXVIII. The causation of Typhoid Fever. Award of two hundred dollars to George E. Waring, Jr., of Newport.

1879. XXIX. Artificial feeding of infants. Award of two hundred dollars to Oliver C. Wiggan, M.D., of Providence.

XXX. Cholera Infantum; its causes, nature and treatment. Award of two hundred dollars to Charles E. Banks, M.D., of Portland, Me.

1880. XXXI. The sympathetic nerve; its relation to disease. Award of two hundred dollars to Charles V. Chapin, M.D., of Providence.

1884. XXXII. The origin and progress of malarial fever, now prevalent in New England. Award of three hundred dollars to Charles V. Chapin, M.D., of Providence.

1885. XXXIII. The present state of the germ theory of disease. Award of two hundred dollars to Charles V. Chapin, M.D., of Providence.

XXXIV. The physiological and pathological effects of the use of Tobacco. Award of two hundred dollars to Hobart Amory Hare, M.D., of Philadelphia.

1886. XXXV. The methods and practical results of treatment of the malarial diseases now prevalent in New England. Award of two hundred dollars to Charles V. Chapin, M.D., of Providence.

XXXVI. New and altered forms of disease, due to the advance of civilization in the last half century. Award of two hundred dollars to Hobart Amory Hare, M.D., of Philadelphia.

1887. XXXVII. Membranous Enteritis. Award of two hundred dollars to James B. Field, M.D., of Lowell, Mass.

1888. XXXVIII. What changes has the acceptance of the germ theory made in measures for the prevention and treatment of Consumption? Award of two hundred dollars to Charles V. Chapin, M.D., of Providence.

1889. XXXIX. The rôle of ptomaines in infectious diseases. Award of two hundred and fifty dollars to Charles V. Chapin, M.D., of Providence.

1890. XL. The pathology, diagnosis and treatment of intra-cranial tumors. Award of three hundred dollars to Philip C. Knapp, M.D., of Boston.

XLI. The surgical treatment of wounds and obstructions of the intestines. Award of three hundred dollars to Drs. Hobart A. Hare and Edward Martin, of Philadelphia.

1891. XLII. The etiology, pathology and treatment of diseases of the hip-joint. Award of three hundred dollars to Robert W. Lovett, M.D., of Boston.

Besides these forty-two prize essays the society has published four volumes of transactions. The first part, issued in 1859, was devoted to biographical sketches of Rhode Island physicians deceased prior to 1850. It was prepared mainly by Dr.

Usher Parsons and preserves much valuable local history. The address of Dr. C. W. Parsons in 1882 and that of Dr. J. H. Eldredge in 1888 were especially devoted to the history of the society and give in detail its origin, work and achievements.

Officers: President, E. P. Clarke, M.D.; First Vice President, W. A. Gorton, M.D.; Second Vice-President, F. H. Rankin, M.D.; Treasurer, G. L. Collins, M.D.; Recording Secretary, F. L. Day, M.D.; Corresponding Secretary, G. D. Hersey, M.D.; Censors, Drs. J. W. C. Ely, Benjamin Greene, Eugene Kingman, J. H. Morgan, G. W. Jenckes, H. G. Miller, W. R. White.

The following list of the society is revised to January 1, 1897:

RHODE ISLAND MEDICAL SOCIETY.—*Local list.**—Bristol, 6,730: Herman Canfield, W. H. Canfield, P. F. Dillon. Burrillville, 5,674: H. J. Bruce (Bridgeton). Central Falls, 15,828: G. J. Howe, A. A. Mann, J. E. V. Mathieu, A. H. Nickerson, D. H. Sullivan. Charlestown, 984: A. A. Saunders (Carolina). Coventry, 5,065: J. M. Bodwell (Phoenix), C. L. Ormsbee (Greene), F. B. Smith (Washington), John Winsor (Anthony). Cranston, 10,575: W. J. Burge (Pawtuxet), G. F. Keene (Howard), D. O. King (Auburn), D. S. Latham (Auburn), A. M. Merriman (Howard), T. K. Newhall (Pawtuxet), E. L. Wilson (Howard). Cumberland, 8,507: L. F. C. Garvin (Lonsdale), G. B. Haines (Valley Falls), T. W. Hague (Cumberland Hill), Alexander Marshall (Berkeley), N. O'D. Parks (Ashton), Mary E. Smith (Valley Falls), T. J. Smith (Valley Falls). East Greenwich, 3,096: C. H. Earle, F. G. Eastman. East Providence, 10,170: D. B. Coxé (Riverside), R. P. Eddy, Simeon Hunt, W. W. Hunt, J. B. McKenna, E. E. Moore (East Providence Centre). Foster, 1,190: Henry Arnold (Foster Centre). Gloucester, 1,633: G. A. Harris (Chepachet), Albert Potter (Chepachet). Hopkinton, 2,713: A. B. Briggs (Ashaway), E. P. Clarke (Hope Valley). Johnston, 11,203: F. A. Payan (Olneyville), R. H. R. Shaw (Thornton). Newport, 21,537: Mary E. Baldwin, C. F. Barker, P. F. Curley, Henry Ecroyd, T. A. Kenefick, H. G. MacKaye, H. R. Storer, H. E. Turner, M. F. Wheatland. North Kingstown, 4,417: S. B. Church (Wickford), Harold Metcalf (Wickford). Pawtucket, 32,577: F. J. Burnett, C. H. French, F. B. Fuller, F. M. Harrington, M. W. Kelliher, J. H. Kingman, G. H. Stanley, C. A. Stearns, C. F. Sweet, H. O. True, W. E. Wilson. Portsmouth, 1,833: Benjamin Greene. Providence, 145,472: Edmund Abbott, H. P. Abbott, J. H. Akers, E. S. Allen, W. E. Anthony, E. S. Bacon, C. O. Ballou, A. F. A. Barry, J. H. Bartley, J. M. Bennett, T. F. Black, W. H. Bowen, J. E. Brown, G. A. Brug, S. S. Burton, G. E. Buxton, F. P. Capron, G. W. Carr, R. H. Carver, C. V. Chapin, E. D. Chesebro, F. C. Clark, G. L. Collins, J. P. Cooney, J. H. Davenport, F. L. Day, J. F. Duffy, F. M. Eaton, A. H. Eccleston, Frederick Edwards (Olneyville), J. W. C. Ely, J. T. Farrell (Olneyville), G. R. Fisher (Olneyville), P. E. Fisher, H. S. Flynn, C. T. Gardner, J. A. Gilbert, W. F. Gleason, C. M. Godding, M. B. Gomberg, W. A. Gorton, D. F. Gray, W. H. Greene, H. C. Hall, J. F. Haller, A. E. Ham, E. M. Harris, E. B. Harvey, N. D. Harvey, G. D. Hersey, C. W. Higgins, L. S. Hill, J. W. Keefe, W. F. Kenney, C. E. D'V. Kennon, G. H. Kenyon, J. F. Kerins, H. W. Kimball, E. P. King, S. H. King, Eugene Kingman, A. M. Knapp, C. H. Leonard, B. J. Lillibridge, M. P. Mahony, Adrian Mathews, G. S. Mathews, W. J. McCaw, J. F. McCusker, Andrew McGregor, W. R. McGuirk, Robert Millar, H. G. Miller, J. W. Mitchell, G. A. Monroe, J. R. Morgan, W. F. Morrison, J. E. Mowry, W. L. Munro, Timothy Newell, R. F. Noyes, J. A. O'Keefe, Charles O'Leary, Charles O'Leary, Jr., C. D. O'Leary, J. E. O'Neil, H. G. Palmer, W. H. Palmer, C. F. Peckham, F. H. Peckham, F. E. Peckham, Jay Per-

*The figures denote the population by the Census of 1895.

kins, Nelson Perrin (Olneyville), E. H. Perry, J. M. Peters, E. E. Pierce, G. W. Porter, Helen C. Putnam, V. L. Raia, Augustus Remick, E. W. Remington, W. A. Risk, A. O. Robbins, F. T. Rogers, Mary P. Root, J. T. Roswell, J. C. Rutherford, F. G. Sawtelle, C. S. Smith, E. B. Smith, Sheffield Smith, W. J. Smith, F. B. Sprague, J. L. Sprague, D. J. Sullivan, J. E. Sullivan, G. T. Swarts, J. B. A. Tanguay, V. O. Taylor, Herbert Terry, Sophronia A. Tomlinson, Lorenzo Traver, W. H. Traver, W. A. Tremaine, F. A. Vinton, E. F. Walker, W. V. Wallace, S. A. Welch, G. G. Wheeler, W. R. White, Byron Whitford, H. N. Williams, Marshall Woods. Scituate, 3,529: Barnard Arnold (Rockland), C. K. Clark (Fiskeville), H. W. Smith (North Scituate). Smithfield, 2,337: I. S. Cook (Georgiaville). South Kingstown, 5,549: H. K. Gardiner (Wakefield), R. R. Robinson (Wakefield), P. K. Taylor (Kingston), O. C. Wiggin (Kingston), Horace Wilcox (Narragansett Pier). Tiverton, 2,964: E. P. Stimson. Warren, 3,826: G. L. Church, N. R. Hall. Warwick, 21,168: J. M. Bodwell (Phœnix), Moses Fifield (Centreville), J. B. Hanaford (Apponaug), N. B. Kenyon (River Point), M. J. E. Legris (Arctic), R. M. Smith (River Point). Westerly, 6,333: John Champlin, H. R. Dunne, J. H. Morgan, R. B. Smith. Woonsocket, 24,468: W. F. Barry, J. J. Baxter, E. D. Clarke, Mary L. Farnum, Joseph Hils, F. H. Jenckes, G. W. Jenckes, J. C. Maranda, W. C. Monroe, A. W. Paine, G. R. Smith.

RHODE ISLAND HOMŒOPATHIC SOCIETY.—Organized May 15, 1850. Meetings are held quarterly. The annual meeting in January. Officers: President, T. H. Shipman, M.D.; vice-president, Sayer Hasbrouck, M.D.; treasurer, L. D. Lippitt, M.D.; secretary, J. H. Bennett, M.D.; censors, Drs. H. A. Whitmarsh, Mary D. Moss, C. A. Barnard.

Active Members:—Bristol: Gertrude Gooding, C. J. Hasbrouck; Central Falls: William Gottschalk; Centredale: C. A. Barnard; East Providence: G. F. Allison; Pawtucket: J. H. Bennett, Emma A. Phillips, J. L. Wheaton; Providence: Jeannie P. Arnold, Lucy H. A. Brown, A. W. Brown, J. C. Budlong, Martin Budlong, P. B. Carpenter, H. C. Crocker, R. H. Eddy, C. L. Green, E. C. Gates, Robert Hall, Sayer Hasbrouck, F. S. Jewett, E. B. Knight, J. D. Lane, L. D. Lippitt (Olneyville), Mary D. Moss, G. L. Miller, G. B. Peck, H. M. Sanger, J. W. Sawin, T. H. Shipman, W. H. Stone, Emily M. Thurber, J. B. Tillingham, P. F. Walker, H. A. Whitmarsh, G. D. Wilcox, A. H. Wood; Westerly: Lucy A. Babcock, F. C. Pagan, L. F. Wood; Woonsocket: E. N. Kingsbury, R. G. Reed.

WASHINGTON COUNTY MEDICAL SOCIETY.—Organized in 1884. Meetings are held monthly. The annual meeting occurs on the second Thursday in January. Officers: President, H. K. Gardiner, M.D., Wakefield; treasurer and secretary, J. H. Morgan, M.D., Westerly.

Members:—A. B. Briggs, Ashaway; John Champlin, Westerly; E. P. Clarke, Hope Valley; H. R. Dunne, Westerly; H. K. Gardiner, Wakefield; William James, Westerly; E. E. Kenyon, Usquepaug; J. D. Kenyon, Westerly; J. N. Lewis, Ashaway; Harold Metcalf, Wickford; J. H. Morgan, Westerly; A. A. Saunders, Carolina; R. B. Smith, Westerly; R. R. Robinson, Wakefield.

NEWPORT MEDICAL SOCIETY.—Organized in 1882, and incorporated in 1883. Meetings are held monthly. Officers: President, C. F. Barker, M.D.; treasurer, Henry Ecroyd, M.D.; secretary, M. E. Baldwin, M.D.

Members:—M. E. Baldwin, C. F. Barker, F. J. Davis, Henry Ecroyd, T. A. Kenefick, H. G. Mackaye, S. C. Powell, W. S. Sherman, H. R. Storer.

PROVIDENCE MEDICAL ASSOCIATION.—Organized in 1848, and incorporated in 1887. Any regular physician living in Providence or vicinity, is eligible for mem-

bership. The association supports a reading-room, in connection with the library of the Rhode Island Medical Society, and subscribes for the leading American and English medical periodicals. Meetings are held in the Medical Library, on the first Monday evening of each month, excepting July and August. The annual meeting is held in March. The annual assessment is \$4. Membership, one hundred and ten. Officers: President, G. T. Swarts, M.D.; treasurer, E. B. Harvey, M.D.; secretary, Jay Perkins, M.D.

PAWTUCKET MEDICAL SOCIETY.—Organized in April, 1895. Composed of physicians living in Pawtucket and vicinity. Meetings are held monthly. Membership, 38. Officers: President, J. H. Chase, M.D.; vice-president, F. B. Fuller, M.D.; treasurer, C. A. Stearns, M.D.; secretary, F. M. Harrington, M.D.; standing committee, Drs. A. A. Mann, J. P. Corrigan, G. W. Stanley, H. O. True, A. H. Nickerson.

HOSPITALS.

When the exigencies of war or pestilence made it necessary to provide a refuge for the wounded or sick, it was the custom in colonial times to take some private house for temporary use as a hospital, compensating the owner if necessary. In 1777 the American army was encamped in Tiverton, nearly opposite Fogland Ferry, and plans were made for an attack on the British, who occupied the island. The following order, distributed among the American regimental surgeons illustrates this practice of selecting private residences for hospital purposes:

GENERAL HOSPITAL TIVERTON OCTR. 18TH. 1777.

Directions and Orders for the Regimental Surgeons or those who attend Regiments as Such:—The House of Mrs. Almy widow on the main eastward of Fogland Ferry is the General Hospital.

The House of Mr. Taylor on the Island two miles South ward from the said Ferry is also appointed for the Reception of the wounded—

Giles Slocum's House about two miles further is also appointed for the same purpose—

But as from peculiar Circumstances of things it may be necessary for the American Troops to act in Different Divisions or by Detachments, and for that Reason it will be Impracticable or hazardous to remove the wounded to the Hospital or Places aforesaid the Regimental Surgeons are hereby impowered & directed to take up Convenient Houses where Necessary for their reception until further Measures may be taken in that behalf—

As soon as the Contest is over & the men dressed each Regimental Surgeon will return to the General Hospital a list of their names, Rank, Company, & Regiment of each sick or wounded person under his Care with the Circumstances attending them, & where Lodged, This is particularly enjoined them in Order the Director of the Hospitals may have it in his Power to render them his Best Services & enable him to make the better Provision for their Comfort, Relief & Safety—

Per Order of the Director—

STEP HARDING H. Ast.

A copy of this order, preserved in the library of the Rhode Island Medical Society, bears the following endorsement:

"These Instructions were delivered to me at Little Compton When an Expedition was intended upon Rhod island; but it proved abortive.

Z. WATERMAN, Regtl. Surgeon."

Small-pox was the dreaded scourge of the early settlers, and in every town provision had occasionally to be made for its victims. In Providence in 1752 Thomas Kinnecut presented a bill against the town for damage to his house, used as a pest-house. The earliest efforts to establish a hospital in Providence were suggested by

this disease. In 1776 and 1777 there were in Providence and vicinity at least three hospitals for the special care of small-pox patients—one in North Providence, one at Tockwatton and one at Field's Point. The city of Providence still maintains a hospital at Field's Point, in constant readiness in case small-pox should appear.

THE RHODE ISLAND HOSPITAL was chartered in March, 1863, having received from the city of Providence a tract of land on Eddy street, overlooking the bay, which had been used for hospital purposes for three-quarters of a century. The present building, with accommodation for one hundred patients, was opened in 1868. It is of imposing architecture, placed at an elevation commanding a fine view of the bay, and securing an abundance of air and light. From time to time alterations and improvements have been made, always looking to a wider and larger use, a better service and greater benefit to the community.

A special department for diseases of the eye and ear was organized by Dr. H. G. Miller at the opening of the hospital in 1868. This service has been separated into two divisions, making a special department under the supervision of Dr. F. P. Capron for diseases of the ear, nose and throat.

A department for diseases of women was opened in 1877, and Dr. G. W. Porter was appointed in charge. This has now become a large, arduous and important part of the hospital work, and is under charge of two associate surgeons, Drs. Porter and Davenport.

Since the opening of the building for out-patients in 1891, special departments have been created for diseases of the skin, under Dr. J. R. Morgan, and for dentistry, under Dennis Keefe, D.D.S.

The latest sub-division of the hospital work occurred in 1896, when a department of orthopædic surgery was established, under care of Dr. F. E. Peckham, and of neurology, under Dr. Eugene Kingman.

An important duty of a hospital staff is the education of nurses. The Training School connected with this hospital was started in 1883. The course of training is two years. Instruction is given by members of the staff, both by didactic lectures and by clinical work in the wards. Since the opening of the school, one hundred and sixteen nurses have graduated, some of whom are now superintending institutions in other cities. There are now forty-five students in attendance. A new building, "The George J. Chace Home for Nurses," affords a pleasant and healthful residence for the student nurses. It has sixty-three rooms, allowing each nurse her own apartment, and is well supplied with bath-rooms, sitting-rooms, library, etc.

Among recent additions to the hospital buildings are the Russell Ward, used for septic cases, as erysipelas and gangrene; and the City Ward, devoted to cases of acute infectious diseases, especially scarlet fever and diphtheria.

The Out-Patient Department, for which a special building was provided in 1891, has become a very useful part of the organization. 7,306 new cases were treated in the out-patient building during the year 1895-96, distributed among eight services as follows: medical, 2,589; surgical, 1,900; gynecological, 263; ophthalmic, 1,313; orthopædic, 126; department of the ear, nose and throat, 580; department of skin diseases, 421; dental department, 114. The aggregate daily attendance in these departments for the year was 25,583.

The ambulance service has received much attention. There is a special telephone for this purpose, and upon request from a physician, the police, employer or other responsible person, an ambulance with rubber-tired wheels, drawn by two horses and accompanied by a medical officer, will be sent to any point in the city for the conveyance of cases of accident or acute sickness. There is a special ambulance and

equipment for contagious cases. During the year, October 1, 1895, to October 1, 1896, the hospital ambulances answered 1,132 calls, of which 508 were for people injured by accidents. The expenses of the service were \$2,971.64.

The number of patients admitted during the last three years, and the days of treatment to each patient were as follows: 1893-94, patients admitted, 1,730; days of treatment to each patient, 27.85. 1894-95, patients admitted, 2,046; days of treatment to each patient, 25.34. 1895-96, patients admitted, 2,283; days of treatment to each patient, 23.45.

The receipts from all sources during the last year were \$70,092.10, and the expenditures, \$74,390.57, showing the outgo to have exceeded the income by \$4,298.47. This deficiency is made up by the deficiency guaranty fund, a subscription in 100 shares, costing the subscribers \$42.98 to each share.

There are six internes appointed by the trustees from candidates recommended by the standing committee of the Staff Association. Internes serve for two years, during which time their work gives a variety of experience in the ambulance service and the various medical and surgical sections of the hospital. Especial attention is given to keeping accurate records of all cases admitted to the hospital.

For the use of the medical staff there is a library of 2,500 bound volumes, for which the trustees make an annual appropriation. The amount thus expended during the last year was \$125. The internes are supplied with current medical periodicals.

The annual report of the trustees and superintendent appears in November, and gives in detail the financial reports and lists of all cases treated, either as in-patients or out-patients.

Officers: President, R. C. Taft; Treasurer, J. W. Danielson; Secretary, J. C. Pegram; Consulting Physicians and Surgeons, Drs. H. E. Turner, J. W. C. Ely; Robert Millar, G. W. Carr, C. V. Chapin, W. A. Gorton, Charles O'Leary; Visiting Physicians, Drs. R. F. Noyes, W. R. White, Byron Whitford, Herbert Terry; Visiting Surgeons, Drs. J. W. Mitchell, G. D. Hersey, C. M. Godding, G. L. Collins; Assistant Visiting Surgeons, Drs. W. L. Munro, J. W. Keefe; Ophthalmic Surgeon, H. G. Miller, M.D.; Assistant Ophthalmic Surgeons, Drs. F. P. Capron, F. T. Rogers, V. L. Raia, N. D. Harvey; Gynecologists, Drs. G. W. Porter, J. H. Davenport; Assistant Gynecologists, Drs. W. A. Risk, C. W. Higgins, H. R. Brown; Surgeons for Ear, Nose and Throat, Drs. F. P. Capron, F. B. Sprague; Assistant Surgeons for Ear, Nose and Throat, Drs. E. S. Bacon, H. P. Abbott; Dermatologist, J. R. Morgan, M.D.; Assistant Dermatologist, G. T. Swarts, M.D.; Neurologist, Eugene Kingman, M.D.; Assistant Neurologist, G. L. Shattuck, M.D.; Orthopedic Surgeon, F. E. Peckham, M.D.; Pathologist, Jay Perkins, M.D.; Librarian, F. L. Day, M.D.; Physicians to Out-patient Department, Drs. S. A. Welch, H. P. Abbott, G. S. Mathews, E. D. Chesebro; Surgeons to Out-patient Department, Drs. W. E. Wilson, F. L. Day, M. P. Mahoney, E. B. Smith; Dental Surgeon, D. F. Keefe, D.D.S.; Superintendent, J. M. Peters, M.D.; Superintendent of Nurses, Miss E. L. Stowe; Assistant Superintendent of Nurses, Miss M. G. Hills.

THE DEXTER ASYLUM.—Mr. Ebenezer Knight Dexter, who died in 1824, gave the greater part of his property to the town of Providence for the support of the poor. The donation included a farm of some thirty acres, on high ground in the northeastern part of the town; and here the asylum was erected at a cost of over \$43,000. It was completed in 1830, but began to be occupied in 1828. Sixty-four paupers were at first received, but this number was soon increased to one hundred. The present average number of inmates is about one hundred and twenty-five. The insane, as well as the dependent poor of the town, were kept here for some twenty years.

Before the organization of the Providence Lying-in Hospital in 1884, this was the only maternity home in Providence, and many children have been born beneath its sheltering roof.

Besides the asylum, the institution comprises the stables, greenhouses, etc., necessary for extensive farm work, the entire farm being devoted to fruit culture and market gardening. The total expenses for the maintenance of the institution and farm for the year ending November 30, 1895, amounted to \$32,370.33. During the same year the proceeds from the sale of farm products were \$21,363.37.

This institution is administered by the Board of Aldermen of the city of Providence, who make a quarterly inspection of the asylum, buildings and grounds. Mr. John T. Brown is superintendent. Medical attendance has been provided for the inmates since 1828; the longest continuous medical service of any charitable institution in the city. The present medical staff are: Consulting physicians, Drs. J. W. C. Ely, G. D. Hersey; attending physicians, Drs. G. L. Collins, C. M. Godding.

THE PROVIDENCE LYING-IN HOSPITAL.—Organized in 1884, opened on Slocum street in 1885, and later removed to the present location on Field, corner State street, Smith's Hill. To Dr. Oliver C. Wiggin is largely due the organization and success of this important and growing institution. In 1895 an infants' ward was opened for the care of feeble infants needing special attention and nourishment. Patients are admitted on an order from the admitting physician, but cases of emergency are received at any hour.

During the past three years much attention has been given to the training of nurses. Seven nurses graduated from this hospital in 1884 and eight in 1895.

The number of children born in the hospital during the year 1895-1896 was one hundred and twenty-one, and the whole number of births since 1885, has been six hundred and eighty-two.

During the past year, 1895-1896, ninety-six patients were received into the infants' ward. Officers: President, J. W. Mitchell, M.D.; treasurer, A. L. Danielson; secretary, W. L. Hodgman; consulting physicians, Drs. J. W. C. Ely, J. W. Mitchell, G. W. Porter, C. H. Leonard, C. T. Gardner, Eugene Kingman, C. M. Godding, G. L. Collins, J. W. Keefe, J. M. Peters, H. G. Miller, C. V. Chapin; visiting physicians, Drs. E. F. Walker, R. H. Carver, Herbert Terry, J. H. Akers; admitting physician, R. H. Carver, M.D.; matron, Miss Ada B. Pike; superintendent of nurses, Miss Bertha B. Bonnyman.

THE RHODE ISLAND HOMŒOPATHIC HOSPITAL, chartered in 1878 and opened in 1886, occupies a commodious stone house on Olney street, Providence. To the main building a modern surgical ward was added, in 1896, chiefly by the efforts and under the auspices of the Ladies' Aid Association. Since March, 1886, the hospital has accommodated seven hundred and twenty-five surgical and four hundred and two medical patients, and afforded care to one hundred and thirty-four infirm or chronic cases. Officers: President, C. E. Carpenter; treasurer, W. A. Spicer; secretary, F. E. Bates; consulting staff, Drs. G. D. Wilcox, J. L. Wheaton, I. W. Sawin; visiting physicians, Drs. Robert Hall, C. A. Barnard, T. H. Shipman, L. D. Lippitt; visiting surgeons, Drs. J. C. Budlong, C. L. Green, H. A. Whitmarsh, A. H. Wood; oculist and aurist, Sayer Hasbrouck, M.D.; admitting physician, Geo. B. Peck, M.D.

PROVIDENCE DISPENSARY.—Incorporated in 1829. There is no hospital or central reception room, but free medical attendance and medicines are furnished to the poor, who are visited at their own homes or receive advice and treatment at the offices of the physicians. Officers: Treasurer, J. W. Vernon; secretary, J. B. Branch; attending physicians, Drs. M. B. Gomberg, C. F. Marston, Charles O'Leary, Jr., E. W. Remington, Craig Cameron; ophthalmic surgeon, L. V. Raia, M.D.

WOONSOCKET HOSPITAL.—Opened in 1888, with a capacity of twenty-six beds. The hospital is situated about a mile from the centre of the city of Woonsocket, on high ground. The corporation own a tract of twenty-five acres surrounding the building, and have a fund of \$100,000, from the income of which the hospital is supported. Officers: President, S. W. Ballou; executive committee, J. W. Ellis, J. B. Aldrich, G. W. Jenckes; members of the staff, Drs. G. W. Jenckes, Joseph Hills, F. H. Jenckes, A. M. Paine, W. C. Munroe, J. J. Baxter.

NEWPORT HOSPITAL.—Incorporated in 1873. During the year 1895-1896, four new wards were added; the Littlefield ward for men, and the Ledyard ward for women and children. These wards are supplied with lavatories and bath-rooms of the most approved modern type, as well as nurses' rooms and private rooms for special cases.

The Carey ward, for paying patients, given in memory of Henry R. Astor Carey, by his brother, is a building separate from the main body of the hospital. Its pleasant, airy rooms, each with its open fire-place and other details, give more of a home-like aspect than can be secured in the large wards.

The last of the four new wards is the Vanderbilt Surgical Building, the gift of Mrs. Frederick W. Vanderbilt. It affords all that modern science can offer for the treatment of accident or operative cases. This building is very complete in all its appointments, and a fine set of surgical instruments and appliances of the latest designs, the gift of W. K. Vanderbilt, has been selected especially for it.

During the year a department for diseases of the eye was opened under the supervision of Dr. N. D. Harvey, and of diseases of the ear under the care of Dr. S. C. Powell. Five hundred and thirty-three patients were treated during the year ending July 1, 1896, at a weekly cost of \$9.23 per patient. Officers: President, G. P. Wetmore; treasurer, J. T. Burdick; secretary, T. G. Brown; consulting physicians and surgeons, Drs. H. E. Turner, H. R. Storer, Clement Cleveland, W. T. Bull; visiting physicians and surgeons, Drs. F. H. Rankin, C. F. Barker, T. A. Kenefick, Henry Ecroyd, H. G. MacKaye, P. F. Curley; ophthalmologist, N. D. Harvey, M.D.; otologist, S. C. Powell, M.D.; superintendent, Lucy V. Pickett; admitting physician, H. E. Turner, M.D.

ST. JOSEPH'S HOSPITAL, Broad street, Providence.—Under the care of the R. C. Franciscan Sisters. During the year 1896, 179 surgical, 384 medical, 80 gynecological, and 47 eye and ear cases were treated. This hospital has been in operation five years, and has recently completed a four-story building capable of about 150 beds. Staff: Consulting physicians and surgeons, Drs. Charles O'Leary, S. H. King, C. T. Gardner, J. W. Mitchell, J. M. Peters, R. F. Noyes, P. F. Curley, M. W. Kelliuh, M. J. Legris, W. F. Barry; visiting physicians, Drs. J. M. Bennett, W. F. Gleason, E. D. Chesebro; visiting surgeons, Drs. G. L. Collins, F. L. Day; assistant visiting surgeons, Drs. T. F. Black, J. B. McKenna; gynecologist, J. W. Keefe, M.D.; assistant gynecologist, W. R. McGuirk, M.D.; surgeon for the eye and ear, F. T. Rogers, M.D.; assistant surgeon, P. Keefe, M.D.; dental surgeon, D. F. Keefe, D.D.S.

CHAPTER CLXXIV.

THE MEDICAL HISTORY OF RHODE ISLAND—Continued.

HOSPITALS—CARE OF THE INSANE—REGISTRATION OF BIRTHS, MARRIAGES, AND DEATHS—STATE BOARD OF HEALTH—MEDICAL EXAMINERS.

CARE OF THE INSANE.

BEFORE the opening of the Butler Hospital, the poor and the insane in Rhode Island were classed together. Judge Staples, writing in 1843, said that one quarter of the inmates of the Dexter Asylum were insane. Each town cared for its own dependents, and as an economical measure this was often accomplished by auction; the poor, sometimes including the insane, being committed to the care of the lowest bidder. This system was open to great abuses; the lot of the poor was hard enough, but the condition of the demented was pitiable.

Even when a town made special provision for an insane person, the officials knew no other method of treatment than forcible restraint, and chains and iron bars were common remedies.

T. R. Hazard, in his "Report on the Poor and Insane in Rhode Island," 1851, said: "It is but a very few years since, that men and women, innocent of crime, were chained in dens, and caves, and cells, and there left for years; shut from the light of day, without clothes or fire to shield or warm them." Such harsh and brutal control of the insane was not peculiar to Rhode Island; it prevailed in all the American states and colonies. Insanity as a disease was not understood, there were few hospitals to which insane patients could be sent, and the danger of maniacal persons to themselves as well as others, made some restraint necessary. With the opening of the Butler Hospital, most of the towns transferred their violent insane to this institution. So generally was this done, that Mr. Hazard, in 1851, reported as a result of a careful examination, only sixteen insane persons in the whole state that he thought should be sent to the hospital.

The Butler Hospital for the Insane occupies an attractive and fertile tract of land north of the city of Providence, and lying on the Seekonk river. The entrance is from Butler avenue. This well-known and successful institution originated in a bequest of Nicholas Brown, of Providence, who died in September, 1841. Mr. Brown directed in his will that the sum of \$30,000 be appropriated toward establishing a hospital "where that unhappy class of our fellow-beings who are, by the visitation of Providence deprived of their reason, may find a safe retreat, and be provided with whatever may be most conducive to their comfort and their restoration to a sound mind." In 1844, Mr. Cyrus Butler offered to add to the bequest of Mr. Brown the sum of \$40,000, on condition that an equal sum should be raised by subscription. The condition was soon fulfilled. The first meeting of the corporation was held March 20, 1844, and the first hospital building was completed and opened for the reception of patients December 1, 1847. Since that date, other buildings have been erected. Ray Hall was the joint gift to the hospital of Alexander Duncan and Robert H. Ives, and was named in honor of Dr. Isaac Ray, the superintendent of the hospital

from its commencement to January, 1867. Ray Hall, completed in 1866, contains a museum, reading-room, billiard-room and bowling-alleys for the use of patients.

In 1874, the David Duncan Ward, for women, was built by Alexander Duncan in memory of his son. A similar ward for men has recently been finished, named in memory of Dr. John W. Sawyer, who, succeeding Dr. Ray, was superintendent from January, 1867, until his death in December, 1885. Mr. Duncan has recently given a house for the residence of the superintendent, built at a cost of \$20,000.

In 1879, Mrs. Corda Sanford, a former patient, presented to the hospital a conservatory of ample size for protecting during the winter the large palms and ferns, which ornament the grounds during the summer.

The average number of patients is one hundred and seventy-five. The rates vary from seven to fifty dollars per week according to accommodations. A certificate signed by two physicians, and the written request of a near relative or guardian, are necessary for the admission of a patient. Officers: President, William Goddard; treasurer, M. B. I. Goddard; secretary, C. M. Smith; consulting physicians, Drs. J. W. C. Ely, G. W. Carr; superintendent and physician, W. A. Gorton, M.D.; assistant physicians, Drs. H. C. Hall, H. J. Morgan; ophthalmologist, N. D. Harvey, M.D.

STATE HOSPITAL FOR THE INCURABLE INSANE.—This institution, at Cranston, accommodates from six hundred and seventy-five to seven hundred patients. It is under the control of the State Board of Charities and Corrections. Officers: President, J. C. B. Woods; secretary, C. H. Peckham; superintendent, G. F. Keene, M.D.; assistant physician, E. L. Wilson, M.D.; interne, H. A. Jones, M.D.

RECORDS OF BIRTHS, MARRIAGES AND DEATHS.—At a town meeting in Providence, June 4, 1655, Mr. Roger Williams, moderator, the following order was passed:

"It is ordered that all persons joining in marriages, all parents of children new-born, or next friends to persons dying, shall record in the Town [Records the] Names and times of their marriage, of their children new-born, and the death of their friends, paying 3*d.* to the Town Clerk for their Record, and this under the Penalty of paying 5*s.* for each Neglect."

This shows that the early settlers appreciated the importance of vital records; but the order was not rigidly enforced, no special record books were provided and memoranda of births, marriages and deaths were intermixed with records of town meetings and miscellaneous orders. The same confusion of records prevailed throughout the colony. The early town books contain some fragmentary records of marriages and deaths; sometimes a list of the births in a few families were interpolated wherever blank spaces occurred in the records of land transfers or other transactions, entered apparently as the heads of families requested or as individual town clerks thought desirable; but no methodical record of these events were required or attempted.

The General Assembly passed a registration act in January, 1852. The clerks of towns and cities were required to obtain and record information concerning local births, marriages and deaths, and were to make certified returns annually to the secretary of state. From the returns thus collected an annual report was to be prepared under the supervision of a committee of the Rhode Island Medical Society. The first report was for the year ending May 31, 1853, and was edited by Dr. Thomas H. Webb. Succeeding reports for twenty-five years were prepared in this way, but after 1878 the newly-established State Board of Health assumed charge of vital statistics, the secretary of the Board being also state registrar. These reports give annually classified statistics as to births, marriages and deaths, with accurate information regarding causes of death, ages of decedents, etc.

THE STATE BOARD OF HEALTH.—The State Board of Health was organized in 1878. Their duties refer to life and health among the citizens of the state. They investigate the causes of disease, especially of epidemics; examine the water supply and sanitary conditions of hotels and boarding houses, and report on any sanitary question referred to them by the General Assembly. The practice of medicine in Rhode Island is under their control, as a physician has no authority to practice without a certificate from the State Board of Health.

The extirpation and prevention of contagious diseases among cattle and other domestic animals was originally an important duty of Boards of Health. This service has recently been transferred to the State Board of Agriculture.

The secretary of the Board is also state registrar of vital statistics and receives from all the cities and towns in the state periodical reports regarding births, marriages and deaths and the prevalence of infectious diseases. The Board publish and distribute among the people a monthly bulletin giving useful information on sanitary and hygienic matters. They also issue an annual report covering the work of the year, and the registration report giving in detail the vital statistics of the state.

President, Albert G. Sprague, M.D.; secretary, Gardner T. Swarts, M.D.; members: S. M. Gray, C.E., Providence; A. G. Sprague, M.D., River Point; J. C. Budlong, M.D., Providence; Rev. G. L. Locke, M.D., Bristol; A. B. Briggs, M.D., Ashaway; P. F. Curley, M.D., Newport; G. T. Swarts, M.D. Providence.

MEDICAL EXAMINERS.—Prior to 1884 investigations as to the cause of death of persons supposed to have died by violence were made by coroners, as is still the case in most states. In 1883, a movement for a better system set on foot by the Newport Medical Society, endorsed by the Rhode Island Medical Society and by all intelligent physicians in the state, resulted in bringing the subject before the legislature. The late Dr. Henry W. Williams, of Boston, a frequent attendant of medical meetings in this state, who was familiar with the origin and working of the Massachusetts system of medical examiners, was of great assistance in the reform movement, demonstrating the new system to have been an economical and scientific improvement in his commonwealth.

A committee of inquiry appointed by the State Society sent a circular to each town clerk asking the number of coroners in the town, how elected, and occupation. Replies were received from thirteen towns and cities. In five, trial justices acted as coroners, in eight coroners were elected by the town council. The thirteen towns and cities, including Providence and Newport, had in all twenty coroners, of whom only two were physicians. The list included three lawyers, two town clerks, two farmers, a grocer, clerk, accountant, correspondent, auctioneer, undertaker, station-agent, overseer of the poor, etc. The utter lack of training which these miscellaneous occupations give for the responsible duty of one who decides whether death has resulted from disease or from violence was evident. The proposed reform met little opposition, and in January, 1884, an act was passed revising the old coroner system and creating the office of medical examiner.

Medical examiners are appointed in each county by the governor for a term of six years. It is their duty to make examinations upon bodies of such persons only as are supposed to have come to their death by violence. The law directs that "When a medical examiner has notice that there has been found, or is lying within his district, the body of a person supposed to have come to his death by violence, he shall forthwith repair to the place where such body lies and take charge of the same; and if, on view thereof and personal inquiry into the cause and manner of the death, he deems a further examination necessary, he shall, upon being thereunto authorized, in writing,

by the attorney-general, or by the mayor of the city or president of the town council of the town where such body lies, make an autopsy in the presence of two or more discreet persons as witnesses, and shall then and there carefully reduce, or cause to be reduced, every fact and circumstance tending to show the condition of the body and the cause and manner of death." The medical examiner may have a physician present as one of the witnesses if he deems it advisable; and he may, if he deem it necessary, employ a chemist to aid in the examination of the body, or of substances supposed to have caused or contributed to death.

When a medical examiner views or makes an examination of the dead body of a stranger he shall cause the body to be decently buried; and in all such cases he shall take charge of any money or other personal property of the deceased found upon or near the body. When services are rendered in bringing to land the dead body of a person found in any of the harbors, rivers or waters of the state, the medical examiner may allow such compensation for such services as he deems reasonable.

The fees of medical examiners are as follows: For a view without an autopsy, \$4; for a view and an autopsy, \$30; and for travel at the rate of ten cents a mile to the place of view.

The following is a list of Rhode Island Medical Examiners, revised to January, 1897:

<i>Name.</i>	<i>District.</i>	<i>Bristol County.</i>	<i>Address.</i>
Nelson R. Hall.....	1	Barrington and Warren.....	Warren.
W. Fred Williams.....	2	Bristol	Bristol.
<i>Kent County.</i>			
John Winsor.....	1	Coventry and West Greenwich.....	Anthony.
Moses Fifield.....	2	Warwick and East Greenwich.....	Centreville.
<i>Newport County.</i>			
Henry G. Crease.....	1	Little Compton and Tiverton.....	Adamsville.
Minot A. Steele.....	2	Portsmouth.....	Portsmouth.
John C. Champlin.....	3	New Shoreham.....	Block Island.
Henry Ecroyd.....	4	Newport, Jamestown and Middletown.....	Newport.
Charles W. Stewart.....	4	Newport, Jamestown and Middletown.....	Newport.
<i>Providence County.</i>			
Henry Arnold.....	1	Foster and Scituate.....	Foster Centre.
Austin H. Longfellow.....	2	Cranston and Johnston	Olneyville.
George A. Harris.....	3	Gloucester.....	Chepachet.
Charles A. Barnard.....	4	North Providence and Smithfield.....	Centredale.
Robert Wilcox.....	5	Burrillville and North Smithfield.....	Pascoag.
Robert G. Reed.....	6	Woonsocket.....	Woonsocket.
Alexander Marshall.....	7	Cumlerland.....	Ashton.
Charles H. French.....	8	Pawtucket, Central Falls and Lincoln.....	Pawtucket.
George F. Allison.....	9	East Providence.....	East Providence.
William H. Palmer.....	10	Providence	Providence.
Jay Perkins.....	10	Providence	Providence.
<i>Washington County.</i>			
J. Howard Morgan.....	1	Westerly.....	Westerly.
John E. Perry.....	2	South Kingstown.....	Wakefield.
Elisha P. Clarke.....	3	Hopkinton.....	Hope Valley.
Harold Metcalf.....	4	Exeter and North Kingstown.....	Wickford.
Albert A. Saunders.....	5	Charlestown and Richmond.....	Carolina.

CHAPTER CLXXV.

THE GORHAM MANUFACTURING COMPANY.

BY J. F. P. LAWTON.



THE marvellous development of the industries of New England during the present century has been almost wholly in the direction of the necessary, the useful, the convenient. It has, indeed, been a result of the competition, enterprise and mechanical genius which have been the combined incentives to progress, that articles embraced within the narrow limits of the strictly necessary or those belonging to the broader fields of the useful or the convenient, have been very greatly improved from rude forms and clumsy devices to artistic forms and graceful designs, and have thus subverted their original purpose and also have become the means of ornament, gratifying the taste for the beautiful. Early in this century the dependence of those whose means enabled and whose taste disposed them to seek those articles of manufacture which would be properly termed luxuries, and which, if they could be made in any sense to subserve a useful purpose, were only substitutes for much cheaper articles, which would equally well answer the ends of necessity or convenience, were compelled to turn to the imported work of foreign artisans. The skill of the latter had been developed by the traditions and examples of mechanical labor in the same line pursued in the same families for several generations under the stimulus of an ample demand from the numerous wealthy families of the nobility and aristocracy of Great Britain and of Continental Europe. A better illustration of what we have said cannot, perhaps, be presented than that of the manufacture of wares of silver, a material which, more, perhaps, than any other, is susceptible of being wrought into forms at once of beauty and of use. Though of much less value than gold, no one will question the assertion that for all the purposes of the highest art silver is much to be preferred to gold. It has, indeed, received the name by pre-eminence of the *Art* metal. Its manufacture in this country early in the century was only of spoons and some small articles, and the very limited demand for the table-service of the wealthy, and of other large pieces for special uses, so far as it was supplied at all by American artisans, was furnished by a few establishments in the larger cities, which manufactured to special order or supplied the limited stock contained in their show-cases by a few workmen in their own employ.

It was a little before the American Revolution (about 1760) that silver table-spoons began to exclude those of wood, horn and pewter from the tables of the quality in England, and even tea-spoons of silver are said to have been rare before the time of Queen Anne (1601 to 1713). To this day, no spoons of solid silver, large or small, much less silver forks, are to be found in common use among the "plain people," with rare exceptions, of any European country. In the United States, on the contrary, as a rule the farmer is but thriftless and the mechanic but a journey-

man whose spoons and forks are not of solid silver. The journeyman furnishes his table with plated articles of this class, or at the worst britannia, and only the rude day laborer contents himself with tinned or pewter ware. Plated tea-services, casters, salvers, pitchers, ladles, cake and fruit baskets, etc., are too common to be noticed, unless wanting, on the tables of those in easy circumstances, and it is no rare distinction if they are of solid silver. In fact, for bridal gifts, nothing less than solid silver is thought respectable; and in this way, so universal has the custom of bridal gifts become, hardly any comfortable young couple now begin housekeeping without a fair show of genuine table-silver.

Boston was the home of the first goldsmiths and silversmiths. Bishop, in his "History of American Manufactures," states that in October, 1652, when Massachusetts undertook to supply the deficiency of specie by a silver coinage, Joseph Jenks, of Lynn, a native of Hammersmith, near London, was employed to make the dies. The money was coined by John Hull, a gold and silversmith, on whose land the "Mint House" stood, and Robert Sanderson, of Boston.

In the *Boston Gazette*, April 28, 1760, we find the following quaint advertisement:

"Nathaniel Hurd Informs his Customers he has removed his shop from Maccarty's Corner on the Exchange, to the back Part of the opposite Brick Building, where Mr. Ezekiel Price kept his Office, where he continues to do all Sorts of Goldsmiths' Work, likewise engraves in Gold, Silver, Copper, Brass, and Steel, in the neatest Manner, at a reasonable Rate."

In a foot note in the "New England Magazine," Vol. III., mention is made of a MS. by St. Davis, of Plymouth, giving the name of a journeyman called Vent, a native of Germany, who excelled in silver-plate engraving. He mentions also Bridgdon, Webb, Edwards, Pierpont, Burt, Bowyer, Parker, Belknap, Emery, Holmes, Tyler, Woodward, Frothingham, Codner, and though last, not least, Paul Revere.

Paul Revere* was born in Boston January 1, 1735. His ancestors were French Huguenots, and wrote the name Rivoire. His grandfather emigrated from St. Foy, in France, to the island of Guernsey in 1685, after the revocation of the edict of Nantes by Louis XIV., from whence his father, Apollos, afterward called Paul, came to Boston, at the age of thirteen, and learned the trade of a goldsmith, received his education at the famous Master Tileston's school. He had a natural taste for drawing, and it was his peculiar business, after learning the same trade as his father, to design and execute all the engravings on the various kinds of silver-plate then manufactured.

At the age of twenty-one he joined the expedition against the French at Crown Point, holding the position of second lieutenant of artillery. During the Revolutionary War, he was at first major and afterward lieutenant-colonel in the regiment of artillery raised for the defense of the state after the British evacuated Boston.

After the close of the war, in 1783, he opened a foundry at the north end of Boston, on Foster street, where he cast church bells, brass cannon and ironware, which he continued until 1801, when he and his son, Joseph Warren Revere, established the extensive works on the east branch of the Neponset river, at Canton. They continued this business until the death of Paul, in 1818, when the son founded the Revere Copper Company, which is still in active operation.

Of the portraits of Revere, that by Copley shows him at the bench, in shirt sleeves, holding a silver cup in one hand, with engravers' tools by his side.

* "History of American Manufactures." Bishop.

Mr. Edward Ingersoll Browne, of Boston, has not only a teapot made by Revere, but a receipted bill for it, which he has kindly allowed us to copy.

BOSTON, April 2, 1789.

MOSES BROWNE, ESQ.,

Bot of Paul Revere & Son.

To Silvr Teapot, 16 oz. at 7	£ s.
Making & Engravg	5 12
Silvr Stand for do. 6 oz.	2 2
Making & Engravg	1 10
4 Silvr Salt Spoons	18
	<hr/>
	£15 10
By Silvr Salver, 25 oz. at 7	8 15
	<hr/>
	£6 15

Recd pay in full,

PAUL REVERE.

This mode of making out a gold or silversmith's account is a relic of an old English custom prevalent even in Shakspeare's time. In "The Comedy of Errors," Angelo, the goldsmith, says:

"Here's the note
How much your chain weighs to the utmost carat,
The fineness of the gold, and chargeful fashion."

ACT IV., SCENE I.

Nowadays, fortunately, buying plate by the ounce is restricted to the auction rooms. No art can flourish under such a system, nor can artists be expected to sell their productions by the ounce.

Old silver with Revere's mark is plentiful. He made vessels for King's Chapel, the First Church, and the Old South. His son Edward was a silversmith of considerable note. He died 1802-3, and was buried at Copps Hill. On the stone marking his grave, which is still to be seen, mention is made that he was a silversmith.

In the Boston directory for 1789, classed under the head of silversmiths, are the following names:

"THOMAS REVERE AND BENJAMIN BURT.

"'Abel Buell, an ingenious gold and silver smith, of Killingworth, Conn., about 1766, constructed probably the first lapidary machine used in this country.' He was also associated with Amos Doolittle, of New Haven (died 1832, aged 78), an engraver, who served a regular apprenticeship with a silversmith, in issuing a series of historical prints and maps.

"Joseph Hopkins, another silversmith, of Waterbury, before the Revolution, made plated knee and shoe buckles, silver sleeve and vest buttons, and other plated ware, some of which are still preserved."

Among the Freedoms purchased in 1781 appear the names of two silversmiths, John Folson and Joseph Hall.

In 1784 Balch & Fryer opened a shop near the north gate for the purpose of carrying on the gold and silversmith's business.

Peter R. Maverick (1755-1811), called Peter Maverick, the first, was originally a silversmith; his son, Peter Maverick (1781-1831), etched and engraved many book-plates.

The goldsmiths, silversmiths and jewelers were represented in the Federal procession of 1788. (*Pennsylvania Gazette*, July 9, 1788.) "William Ball, Esq., senior member, with a silver-urn. Standard bearers, Messrs. Joseph Gee and John Germon, carrying a silk-flag, with the goldsmiths' arms on one side—motto: 'Justitia Virtutem Regina;' and on the reverse the Genius of America, holding in her hand a silver-urn, with the following motto: 'The Purity, Brightness and Solidity of this Metal is emblematic of that Liberty which we expect from the New Constitution;' her head surmounted by fourteen stars, ten of them very bright, representing the states which have ratified; two less bright, descriptive of New York and North Carolina, whose ratifications are shortly expected; one with three dark points and two light ones, an emblem of Rhode Island, and one with equal luster with the first ten, just emerging from the horizon, near one-half seen, for the rising state of Kentucky."

"After which followed the rest of the masters, with the journeymen and apprentices, in all thirty-five."

In Lancaster, in 1786, there were five silversmiths; Pittsburg, in 1791, contained thirty-seven manufacturers, and among these, in 1808, were five watch and clock-makers and silversmiths.

The manufacture of silver-ware, which had been commenced in Providence, soon after the Revolution, by Messrs. Saunders, Pitman and Cyril Dodge, employed four establishments in that town in 1795. These belonged to Nehemiah Dodge, Ezekiel Burr, John C. Jenckes and Pitman & Dorrance, who were chiefly engaged in the manufacture, on a limited scale, of silver-spoons, gold-beads and finger-rings.

Jabez Gorham, born in Providence in 1792, was descended from John Gorham, who came from Northamptonshire, England, in 1643, and settled at Plymouth. At the age of fifteen he was apprenticed to Nehemiah Dodge, and commenced business soon after attaining his majority. After various changes his son, John Gorham, was admitted into the business, and he was the founder of the Gorham Manufacturing Company, now the largest producers of art silver-work on the continent.

Within a half century the business of the American silversmith was mostly confined to making spoons to order for the jewelers, who rarely purchased more than one or two dozen at a time, for particular orders. About 1825 it was noticed that the silversmiths began to venture into the manufacture of light spoons, for general sale through a class of cheap-jewelry peddlers, who are still well remembered by the natives of New England of that period. The Providence manufacture had begun to be extended, and brought into national relations by the enterprise of a young goldsmith named Jabez Gorham, who adapted his work to the general requirements of the trade, and made his way with it in the Boston market by under-selling and out-pushing the unmercantile mechanics of his craft. The droll account the old gentleman used to give of his semi-annual marketing in Boston, is more expressive than a general description could be, of the very modest status of the now-imposing silver trade of our chief cities; how the Boston jewelers assembled at his lodgings, pursuant to notice, that they might all be admitted at the same moment, without partiality, to view and divide the little trunkful of new jewelry spread out upon his bed.

In 1831 Gorham threw his energy, skill and influence into the manufacture of silver for general sale. As the silver spoon may be called the germ of the whole prodigious growth of domestic silverware, so the little shop of Jabez Gorham, in Providence, was the acorn from which grew the main trunk of the manufacture, and

the date of 1831 may be set as the era of our silver age. There is little to be said of it, for the first half of its history, save that it grew with the gradual growth of wealth and luxury throughout the country, waxed great on the few small and popular table utensils then merchantable, and by virtue of the mental and moral affinities gathered in the Gorham firm, concentrated the resources of the business in one great establishment, prepared, at the proper time, to employ those resources with a magnificence, both in art and enterprise, of which there has been no other example in the history of silver manufacture.

About 1850 the development passed from the spoon to the plate-stage. Silver table-services, in a few simple styles, became a regular line of production, increasing with the prosperity and ambition of the wealthy.

Sumptuous living may not be the right use of money in a world so full as this is of evils that money can aid to remove, but for people whose ideas of table silver will go beyond the line drawn at spoons and forks, it is just as well to have the works of art that can delight and refine the taste, if nothing more.

In the capacity of bridal gifts, articles of silver appropriate to the style of the nascent family seem to be the most commendable of superfluities, even if they are not strictly necessary. Well-selected silver articles for the table, particularly, are permanent keepsakes, like nothing else, almost, that can be thought of; cherished for their unchangeable usefulness, beauty and value, as well as for their associations. Silver reigns in the marriage feast, and in all its after-memento, perfect, matchless symbol of the performance, preciousness, purity, beauty and homely use, that meet in the most sacred relation of human life.

The third stage dates from the war. In this time, while the number of distinct varieties in the catalogue of the silversmith's regular wares or shelf goods has increased from a dozen to hundreds, a style of art has also grown up in this country out of the best elements handed down from the masters of every age, selected, combined, and improved with no inferior skill, and with vastly greater constructive resources.

In 1863 Gorham & Company made application to the General Assembly of the state of Rhode Island for an act of incorporation under the name of Gorham Manufacturing Co., and the charter was granted by the legislature at its May session at Newport.

The charter was accepted and the corporation organized January 1st, 1865.

The extent of the business which the company transacts annually at its factories and at its stores in New York, Chicago and San Francisco, have made necessary, gradual, but constant additions to its manufacturing facilities, until the capacity of its original works, located in the very centre of the city of Providence, had been fully reached, and it became necessary that an entirely new plant should be constructed, bringing practically under one roof every branch of the industry.

The dimensions of some of the chief operating rooms will convey an idea of the extent of the new works.

Office Building,	200x60 ft.
Chief Manufacturing Building,	303x44 ft.
Preparatory Room,	205x80 ft.
North Wing,	224x44 ft.
South Wing,	256x44 ft.
Carpenters' Shop,	101 1/2 x 48 1/2 ft.
Silver Foundry,	116x43 ft.
Bronze Art Foundry,	100x44 ft.

The total floor space is 241,781 square feet, equivalent to about five and a half acres.

Some idea of the completeness of the establishment can be gained from the knowledge that it has its own independent water supply, its own fire department, its own electric light plant, its own machine and blacksmith's shops, its own photographic outfit, and a complete plant for making the artistic cases in which fine silverware is sold. All of these are but accessories which make the Gorham works a complete and symmetrical whole. Thirteen acres of land (five hundred and forty-four thousand, two hundred and twelve square feet), represent the site at Elmwood on which the factory is built, of which about six acres are now occupied by the several buildings.

The main building, which is plainly visible from the line of the New York, Providence and Boston Railway, is the office building, having offices, store rooms, packing and shipping rooms, on the first floor, a basement for storage below, and the library, museum, and superintendent's office above.

In the building adjoining the offices, is the bullion department wherein is represented the concentrated value of the crude product. Outline patterns, for the guidance of workmen, giving all dimensions, weights and memorandums of the proper finish, of every piece, are here on file; and it is known by these exactly how large and heavy a piece of silver is required for the purpose. A large, steel door fire-proof vault is the repository of the bullion. A similar vault is on each floor for the care over night of the silver in process of making.

Opening out of the bullion room, in a one-story brick building, communicating with the other parts of the works, but easily cut off from them, is the melting room. It is equipped with furnaces and with every modern appliance for economical work. When melted, the silver is run into skillets or bars according to the demand for either.

Adjoining the bullion building is another one-story structure, of unusual strength. Its roof is arranged to carry very heavy lines of shafting. This is the preparatory room. In it are the breaking down, and the finishing rolls, for the first treatment of the bars and skillets of silver after they leave the bullion room. Owing to the great weight of the heavy machinery, the whole of this structure is designed to resist great strains. The roof and walls are of unusual strength; the floor (which was laid out by the company itself) has a foundation of concrete, surrounded by wood sills, floored over with a three-inch plank and topped with maple seven-eighths of an inch thick. The building is lighted by large windows on all sides and by a double monitor roof, which affords ample means for ventilation. As you enter the room you see to the left thirty-six large drop stamps of modern design at work. They are mounted on a solid granite foundation, seven feet thick. Near them are the cutting, grinding, drawing, and embossing presses, most of which are built from designs furnished by the company. The massive breaking-down rolls and finishing rolls were constructed by the company.

The drop stamps are important factors in the manufacture of spoons, forks, and other articles, and invariably excite the interest and surprise of the visitor. A steel die is fixed securely in the "bed," and its mate secured in the drop. The piece of silver to be stamped, technically known as a "blank," is placed upon the bed die. The drops, which vary in weight from seventy-five pounds to a ton, have a loose strap of belting attached to them, which is carried over a rapidly revolving pulley above the iron upright, between which the drop slides up and down. The other end of this strap hangs convenient to the operator's reach. As he grasps

and tightens it over the pulley, the drop is whirled aloft as though it were the merest trifle, only to fall the next second with a blow which instantaneously transforms the blank into the most beautifully-decorated pattern. A floral design of the most intricate details will be brought out with rare fidelity to the slightest line in the die. But for this machine other methods would have to be relied upon which would greatly increase the cost of the wares.

The thirty-six drop stamps are connected by massive cast-iron gallows-frames, which also carry the automatic-driving mechanism. Not the least interesting feature of this preparatory room is the collection of dies, tools, and templates. They are not by any means the least valuable of its features, in fact, they make up a large proportion of the value of the entire plant. There are thousands of them, all marked, numbered, and registered alphabetically, so that they can be put into active service on a minute's notice. They represent the labor of years, and possess an artistic value not to be calculated. There is another supply of these dies not in active use, kept in the basement of the building. In this preparatory room you will see the heavy work. Lumps of shining metal are rolled into sheets and cut up and stamped into the forms of spoons, forks, and other designs. You will see the solid mass of unshaped metal grow into beauty of form under the quick, sharp action of the huge steel machines, which do their work with almost a human impulse.

But while the delicate precision of the machinery used in reproducing designs in solid silver, or electro-plate, is a necessary and valued feature of this establishment, it is not that which has given to its work its distinctive reputation. The machine work represents a large share of the annual product of the establishment, but the greatest artistic value is represented in the hand-wrought work, which has always been a feature of the company's output. No machinery can give to the finer productions in silver the delicate, graceful individuality of hand-fashioning and decoration; and even where it is necessary to trust the cutting of the foundation of an elaborate piece of work to machinery, the delicate hand-touch is necessary to give to it the characteristic finish which stamps it as a work of art.

Adjoining the preparatory room is the annealing and pickling room, containing five annealing furnaces, with revolving tables, and five pickle tanks.

The boiler and engine house adjoins the preparatory room. The boiler house contains six 175 horse-power Corliss upright boilers, encased in brick. The fuel used is bituminous. The boilers have every modern improvement. There is room in the boiler house for two more boilers which are soon to be erected. The engine, which is one of the Corliss improved type, automatic, of 450 horse-power, has a 26" cylinder, 60" stroke, with a band wheel of 20 feet diameter and 36" face. At present the engine is working high pressure, but it is arranged so it can be worked condensing if desired.

The blacksmith's and plumbing departments are in a one-story building erected especially for them. It contains a complete equipment—two blacksmith's fires, hardening furnaces, steam hammers, and all the other appliances necessary. The machine shop is on the ground floor of the three-story building which constitutes the north wing, adjoining the blacksmith's shop. In it is a complete outfit of lathes, planers, drills and moulding machines, and here are made the dies and heavy machinery which are used in the preparatory room and in other parts of the works. Adjoining this machine shop is the department of die-cutting and the shop in which experimental machines are erected and tested before they are placed in position in the works.

On the next floor is the room used for the manufacture of small silver ware, while the opposite one is devoted to large hollow-ware. On the floor above is the

chasing department and the department for fine engraving. They are both interesting processes, requiring the attention of skilled workmen, men with trained eyes and the artist instinct in their touch.

All of these rooms are well lighted—a prime requisite where such delicate work is to be done. In the south wing of the main building, on the ground floor, is the electro-plating room, which is fitted with plating and dipping tanks, scouring, and a number of scratch-brushing machines.

The other half of this floor is used by the bronze and brass ecclesiastical department, whose productions are performing the double function of use and ornament in so many chapels, churches and cathedrals throughout the land. In this great work-room the bronzes, after coming from the foundry, are finished by the careful hands of the skilled chisellers. It is crowded with completed pieces, or those receiving the final touches—lecturns, memorial brasses, mural tablets, altar railings, busts, statuettes, reliefs, plaques, and all the other various objects, large and small, which are either entirely the work of the Gorham Company, or cast by them.

The entire second floor of this wing is necessary for the plated hollow-ware department. Here German silver is the metal which is wrought into shape, and when finished, by methods very similar to the silver product, is sent below to the plating room for its silver bath as already described.

Half of the floor above is required for making and lining the various styles of fancy cases. Here men are at work cutting brocade, leather, satin and other suitable materials; and here, too, girls are employed in the various details incident to the finishing of the cases, and in making the cotton flannel bags which hold the various kinds of pieces made, except spoons and forks. The special bleaching of the flannel prevents the tarnishing of the ware. It is interesting to note that more than seventy thousand of these bags are made annually. Adjoining the case department is the photographer's studio, possessing a very complete outfit of the photographic apparatus, and every possible convenience for the work. A large force is employed and the system is admirable. Every piece of work, regular or special, is photographed, and enough prints of each must be made to supply books for the travelers, for the warerooms, the factory, and duplicates for mailing purposes. Upwards of eighty thousand photographs were made during the past year, and, in addition, special negatives are being constantly made for processes of illustration. The systematic arrangement for storage of negatives is shown in the long lines of racks, giving a number to each glass, all of which are duly recorded in books kept for the purpose. A cabinet, in which are kept the many thousands of duplicate photographs, is so arranged and classified in folios as to necessitate no search for any print required.

In the further corner is the burnishing-room, where is given the high polish and lustre so admired in silver.

Returning to the central building, just behind the offices, which is the chief manufacturing building, we find on one side, the German-Silver Stock and Pattern Department, and on the other, the Sterling Silver-spoon Department. Spoons and forks are an important feature in the output of this establishment, and for years the demand for them has steadily increased.

Entering the second floor from the central stairway, the half to the right is divided between the Cutlery-room and the Mounting-room. In the former all sorts of scissors, from the substantial coupon to the dainty embroidery pair, pocket-knives and razors are fitted with silver handles in styles appropriate to their uses. The cutlery consists of carving-knives and forks, table, medium and dessert-knives, and provided with handles to match in design and finish the principal patterns of spoons and forks.

The Mounting-room is busied making and soldering handles to cups or vases, feet or bases to bowls and dishes. The articles are placed on an iron circular grate or pan, and as it revolves, the hot blast from a gas blow-pipe is directed upon them until the cherry red-glow is reached, when the soldering is applied. Here, also, are the embossing rolls, which are so essential in the manufacture of napkin-rings and strips of border, the use of which is almost limitless. Match, tobacco and puff-boxes, tea-caddies, pepper and salt-shakers, etc., are constantly made, while elegant patterns in crystal and cologne bottles are mounted with silver-tops.

Midway on this floor are the lathes for spinning, a fascinating process to the visitor. The beginning is merely a simple disc of silver, although the result may be a cup, vase, pepper, or a bowl. The disc is clamped firmly to the shaft, and as the lathe revolves it rapidly, the edge is spun over against the wooden shoulder and the hollowing is begun. As the article acquires depth it is shifted from the shoulder to a "chuck." This chuck also is of wood, and is exactly of the size and shape the silver is destined to become. If the neck of the article is smaller than the body, the chuck is of necessity made in several pieces, accurately fitted together, and can thereby be introduced into the article piece by piece, when the silver can then be spun upon it, to a shape at once exact and symmetrical. The tool which holds the chuck in position is then withdrawn, the several pieces of the chuck collapse, and are readily removed.

The left-hand half of this floor is a labyrinth of shafting and belts. This is the turning-room, and the floor is crowded with lathes, for either metal, horn or wood-turning. Beyond is another chasing department, this one devoted to plated-ware.

On the third floor are the finishing and polishing-rooms. The water used in cleaning is drawn from artesian wells, under the floor of the pump-house, by a large direct-acting steam-pump, which distributes it through the various buildings, for drinking and cleaning purposes. It goes from the finishing-room to the assay department, where the waste silver is extracted from it. This assay department, which is in the basement of the south wing, is a unique feature of the establishment. All of the dust from the polishing apparatus is collected by a perfect exhaust system, and conveyed to the assay-room. All of the sweepings and other dirt are brought here to be assayed, to extract the silver that may have accumulated therein. All of the water from the entire building, including even that which is used in photographing, and by the operatives in washing and cleaning, is brought here to a set of large acid and solution-settling tanks, where it is treated carefully, and the silver extracted. A competent chemist and assayer is in charge of this department. An essential feature of the duties of this chemist and assayer, is to constantly test the quality of the silver in the process of manufacture, and by this means the positive assurance is given that no piece of the Gorham work, bearing the well-known trade-mark, is ever sent forth below the sterling standard of purity, viz., 925-1000 fine.

No question is of greater importance to the purchaser than that of the purity of the metal, of which his tea or other service is made. Absolute purity—*i. e.*, 1000-1000 fine—is impracticable, it being too soft for durability. Both American and French silver coins are made of silver of the standard of 900-1000 fine. English silver coin, however, is of a higher grade, 925-1000 fine, known all over the commercial world as sterling.

In former years, the American silversmiths adopted for their wares the standard of American coin, and many family heirlooms are to be found with the word "Coin" stamped upon them. In 1868 the Gorham Manufacturing Company adopted the English standard of sterling (925-1000), and has since adhered to it exclusively. The responsibility for its accuracy is not left wholly with the persons who prepare the

bullion for the crucible. A competent assayer is constantly inspecting the quality of the silver in the various processes of manufacture.

Exposure to fire until red-hot brings all the impurities to the surface, evidenced by discoloration, to remove which requires an immersion in sulphuric acid, the purifying effect of which leaves the piece so white as to require no further finish but for its sensibility to touch.

The dynamos of the Plating Department are in a room adjoining the Assay Department, and in the same room is a small Edison dynamo for supplying light when the main plant is not running. These dynamos are driven by a small engine in the same room, which draws its steam from the main boiler plant. In this room are also the hydraulic pumps and pressure tank for the two large hydraulic elevators. In the room adjoining this is the machine for grinding and pulverizing the pumice for the polishing lathes.

The making of cases is a distinct branch of the work of the Gorham Company. Not only the handsome cases in which sets or individual pieces are placed are made here, but even the packing-boxes in which goods are shipped, are put together on the premises. A large frame building is filled with rough lumber used for this work. In it are stored, also, such of the large casting patterns as are not in constant use. The Carpenter's Shop is a two story brick building. The first floor has a full complement of wood-working machinery, with which the material for the packing-boxes, cases and patterns is prepared. The second floor is used by the cabinet and case-makers and is fitted with the requisite machinery. Adjoining the carpenter's shop is an apartment 28 x 21, with steam pipes, small steam-engine and fans, used as dry kilns for the lumber, and also for heating that building. For the large combinations of spoons and forks, tea sets and other pieces to be encased for presentation purposes, substantial cases of wood are a necessity. For this purpose thought is given to the selection of suitable wood, good taste in the choice of lining material, and no pains are spared in the details of construction. Choice woods are used, such as mahogany, oak, maple, ash, olive, etc. The wood when selected is put in the kiln, subjected to proper heat, thence removed to a dry-room, and when properly seasoned is ready for working. These cases of wood-chests are exquisite specimens of cabinet work, possessing beauty of finish, attractive forms and the best possible adaptability for the specific purpose for which they are made, and also, the best workmanship, even in parts not exposed to the eye. The second floor of this building communicates by a bridge with the south wing of the main building, in which the cases are finished. A brick building, one story high, is used as a Bronze Statuary and Brass Foundry for the casting of monumental and other work, of any and all kinds, even to the largest size; for the Gorham Company now not only make "pictures of silver," but also sculptures of bronze.

The silver foundry, in which castings are made, is a one-story brick building with a flat gravel roof. It is equipped with the necessary furnaces for melting silver, a complete outfit of flasks, ovens for drying molds, and bins for holding the clays and sands used in the preparation of these molds.

A building for coal storage, with an inclined track leading to the second floor, has been erected at the rear of the grounds. It is on the line of a switch which connects the works with the New York, Providence & Boston Railway, so that cars can be unloaded directly into the bins. Realizing the necessity of saving every minute of time, and the economy of bringing all the departments of this great establishment as closely together as possible, the Gorham Company has made the factory exceedingly compact, and there is every facility for obtaining the most artistic as well as the most substantial results. There is an air of solidity about the buildings which is more in

keeping with their character than perhaps a more ornate exterior would have been. The chief buildings have granite foundations, carried to about five feet above the ground, the superstructure being of red brick with a gravel roof.

Hydraulic elevators connect the floors of the main buildings, which are also connected by staircases of brick and iron. Situated as the Gorham establishment is it must be independent, as nearly as possible, in the matter of heat, light, fuel, etc.

The determination to secure the most perfect ventilation and equable heating resulted in the introduction of the Sturtevant System, by means of which large volumes of pure warm air are delivered under a slight pressure at various points within the building. The entire apparatus is centrally located in a specially constructed building.

By the introduction of the Sturtevant System perfect control is maintained of the quality, quantity, temperature and humidity of the air; the supply of air is positive and unaffected by local changes in the weather. The entire heating surface is massed in a single heater, encased in a fire-proof jacket, and there is consequently no danger from fire, freezing or leakage. The leakage of air from the rooms is outward, thereby avoiding the admission of foul odors and impure air. The entire system is under the immediate control of the engineer in the apparatus room.

The precautions taken against the danger of fire are extensive. The factory is connected with the city water-works and also the fire-alarm service. But it has its own water supply, its own electric light plant, and its own fire department. Most of the water is obtained from a large pond near the engine house which furnishes a never-failing supply. On the bank of this pond is a two-story brick pump and fire-apparatus house. In the basement of this building is a large duplex fire-pump, which takes its supply through an eight-inch pipe and delivers it to the hydrant service surrounding the building. Other pumps are located under the engine room, drawing water from the same pond and delivering it into a large tank in the main tower. This tank is sixty feet from the ground and has a capacity of thirteen thousand gallons of water. It supplies the plumbing system of the entire establishment. Above it swings the twenty-one hundred pound bell which announces the hours for the big Seth Thomas clock in the tower. The drinking water, as has been stated, comes from the artesian wells under the pump house. The water department and the fire department of the factory are necessarily closely related. In the upper story of the pump house is a large hand Babcock chemical engine and three hand hose reels, with full complement of nozzles and Babcock hand fire-extinguishers. As further safeguards there are hydrants within and without at points selected as most available in case of fire. Grinnell automatic sprinklers are in every room. There is little danger that fire will injure the establishment seriously. Whenever the works are closed they are patrolled by three competent watchmen, and watchman time detectors keep watch on *them*.

It has been the theory of the Gorham Company that all articles within its sphere of manufacture, however commonplace or humble, could be made beautiful as well as useful; and it has aimed to advance American civilization by observing in all its work or product that perfect harmony between purpose, proportion and ornamentation, which satisfies at once the mind and the eye, and which, by combining the spirit of truth with the spirit of beauty, at once educates and refines.

With this intent it has drawn to its aid whatever seems best fitted for its purpose, and has in its employ artists and artisans whose taste and skill are to be judged by the specimens submitted to the public. Its processes of manufacture are largely the result of its own experience, and of the inventive skill in its employ, and are believed to be in a great degree peculiar to the silver-worker of this country.

CHAPTER CLXXVI.

JEWELRY MANUFACTURE.

BY WALTER BLISS FROST.



SIMPLICITY was the keynote of the Puritan character. The founders of New England eschewed any manifestations of art which in any way appealed to the senses. This love of simplicity was shown in their architecture as well as in their religion, and in their apparel in no less degree than in their mode of government. The Pilgrim Fathers, it may be fairly presumed, were especially severe in their attire as a protest against the frivolities which were an outgrowth of the profligate court of the Merry Monarch. Jewelry came under the ban, and about all that survived the immigration to America were the enormous belt and shoe buckles of the times, on the part of the men, and the wedding rings and simple brooches of the women.

These being well-known facts, it seems almost paradoxical that in the three states which were chiefly settled by the Puritans and their children,—Massachusetts, Rhode Island and Connecticut,—more jewelry and ornamental silverware is made than in all the remainder of the country combined. It seems probable that the goldsmith never quite disappeared even in early colonial days. He was certainly strongly in evidence immediately after the Revolutionary period. In the early records of the larger places the goldsmith's title appears along with that of the blacksmith, the cooper and other more necessary artisans. The goldsmith of those days carried little stock, and that little was imported from England. His chief business was to manufacture to order the wedding rings and gold beads for our great-grandmothers and watch seals for our great-grandfathers. The goldsmith was also a silversmith, and he made, likewise to order, the dozen silver spoons which were considered necessary for the proper wedding outfit of our foremothers. The manufacture of shoe buckles was also a growing industry.

On August 13, 1784, Seril Dodge announced to the public of Providence, R. I., that he had just opened a shop for the manufacture and sale of watches and clocks, and chains, seals and keys. In 1788 he had added the manufacture of silver and plated shoe-buckles. Saunders Pitman was a contemporary. John C. Jencks, Calvin Wheaton, Ezekiel and William Burr were all in business prior to 1792. In 1790 a census was taken, which determined that one hundred pairs of silver shoe-buckles, fourteen hundred pairs of plated buckles, and eighty dozens of silver spoons had been made in Providence during the year.

The real pioneer of the jewelry business, as we know it to-day, and to whom Providence is indebted for establishing in that city the beginning of a great industry, was Nehemiah Dodge. In 1794 he began business on North Main street a few doors

south of the historic First Baptist Church. At first he made 18-karat gold jewelry in the same manner as the other jewelers of the day, but very early in his career he invented a method of making a little gold go a great ways. In fact, he was the first manufacturer of rolled plated jewelry. He devised the plan of uniting a thin sheet of gold to a thicker sheet of copper, hammering it down on an anvil, and then making it still thinner by hand rolls. The cost of jewelry was thus materially cheapened, and Dodge had sufficient business instinct to realize the importance of his innovation. He began to make jewelry to sell to other goldsmiths, and thus is considered to be the first "manufacturing jeweler" in the sense that term is now understood. Dodge's business grew and prospered, and at his retirement from business in 1826, his estate inventoried \$70,000, which was considered a princely sum in those days. He died in 1856. His eldest son, John C. Dodge, was the founder of Dodgeville, Mass., a cotton-manufacturing village, and another son was in the wealthy banking-house of Clarke, Dodge & Co., of Philadelphia.

Out of Nehemiah Dodge's discovery of a way to cheapen the cost of jewelry grew that vast industry of the present day, which is centred in Providence, R. I., and in Attleboro and North Attleboro, Mass. Boston had a similar representation of early goldsmiths. In the first Boston directory, published in 1796, the names of various goldsmiths are given, among them Edward Revere and Revere & Sons. Largely owing to the failure to adopt the making of jewelry after the Dodge plan, when the knowledge of the secret became common property, the industry never attained large proportions in Boston. Even to-day the manufacturers there are essentially goldsmiths, after the style of their early prototypes, and make up goods to supply special orders or to sell over their own counters.

Other names besides that of Nehemiah Dodge, which are remembered as belonging to men of great ingenuity and skill as artisans, united with shrewdness and ability as business men, are those of Joseph Veazie, Davis & Babbitt, Frost & Mumford, G. & A. Richmond, and Jabez Gorham. Veazie was an extensive and successful manufacturer, and his shop, built in 1808, the oldest building in Providence erected for the manufacture of jewelry, is still standing on North Main street, half-way up Constitution Hill. Many afterwards prominent jewelers learned their trade of Veazie. His specialty was watch chains. Davis & Babbitt were lapidaries as well as chain-makers. William R. Frost, of Frost & Mumford, was a grandson of Saunders Pitman, one of the pioneer jewelers, and learned his trade of him. In 1824 they advertised to make diamond and paste jewelry. G. & A. Richmond were extensive manufacturers. They adopted the new methods as fast as they came out, and they pushed the sale of their goods far and wide. Trips to other markets were made then by packet and on horseback. Yet there were those among the early Providence jewelers who traveled even as far as New Orleans in the pursuit of business. Chicago, the jewelers' greatest market to-day, was then an uninhabited wilderness. Jabez Gorham was the founder of the house now known as the Gorham Manufacturing Company, who carry on the largest silversmithing establishment in the world. Jabez Gorham was an apprentice of Nehemiah Dodge, who was an extensive maker of spoons. At the age of twenty-one he entered business for himself, and at first was a jeweler rather than a silversmith. In 1831 he secured the services of Henry L. Webster, of Boston, who was a spoon-maker, and as Gorham & Webster the firm united silversmithing with the making of jewelry. Ten years later this partnership was dissolved, but Gorham continued the business with great success. There has been hardly a year from that day to this that has not witnessed an increase in their output.

Space is too limited for more than a glance at the leading figures in the jewelry

business of Providence, as it grew and thrived all through the nineteenth century. Some of the other houses prominent before the War were: Mathewson & Allen, G. & S. Owen, Hunt & Owen, Church, Metcalf & Co., Sackett, Davis & Co., Palmer & Capron (who in 1897 are still in business after fifty-two years), Payton & Hawkins, J. A. Brown & Co., Robert Barton, Richardson & Hicks, J. B. Nichols & Sons, R. W. & A. V. Potter, William Johnson, Wilcox, Battelle & Co., Tillinghast & Mason. Mr. Johnson, mentioned above, is now (1897) still in business after sixty-seven years of continued activity at the trade.

In 1846, Thomas H. Lowe came to Providence from Birmingham, England, bringing with him the knowledge how to make rolled plate by sweating the thin sheet of gold on the substratum of base metal before it is rolled out. This method was so much simpler, better and more economical than the old-fashioned soldering idea, that it produced a great revolution in the business, and again cheapened the price of jewelry for the consumers. Mr. Lowe's invention was exploited both by himself and by Jeremiah Briggs, and their sons still carry on establishments for the manufacture of rolled plate and wire.

The invention by Levi Burdon of seamless filled wire about ten years ago has also done much to change the styles and elevate the quality of many kinds of plated jewelry. By this invention a solid wire is covered with gold on the outside, and there is absolutely no seam to open up and thus reveal the fact that the jewelry in which it is used is plated. The wire is drawn down to any degree of fineness desired. Besides the company formed to exploit Mr. Burdon's invention, there are now three other wire-making establishments which make seamless wire by various processes, while nearly all the platers have fallen into line.

The manufacture of metal ornaments and jewelers' findings has come to be an important branch of the industry. This has grown up largely within ten years. Settings for stones can be made more cheaply by concerns which are especially fitted up for that branch of business than the jewelry manufacturers can make them for themselves. Little by little the setting makers have added other fragments of jewelry, until now one manufacturer of this class of work can show a thousand different samples. The leading manufacturers in this line are: Thomas W. Lind, of Providence, and George H. Fuller & Son, of Pawtucket.

The growth of the business is well illustrated by the figures taken at the different censuses. In 1856 there were fifty-six jewelry-making firms in Providence, employing 1,400 hands, and the value of the yearly product was \$2,696,000. In 1860, \$1,112,000 was invested in seventy-seven shops, which employed 1,661 persons, who earned \$697,692 during the year. The war proved a set-back to the business, for in 1865 there were only forty-five shops, employing 724 people, and the year's product was valued at \$1,200,025.

In 1875 there were 133 factories, employing 2,667 persons. The value of the product was \$6,023,551. The amount of wages paid out, \$1,752,482, was the fourth in amount in the state. In 1880 it was shown that little Rhode Island produced one-fourth in value of all the jewelry and silverware in the country, and probably half the amount in quantity.

In 1885 there were 169 jewelry shops, with a capital of \$1,153,187, employing 3,511 people, to whom were paid \$1,801,429 in wages. The raw materials used were valued at \$2,283,840, and the finished product at about \$7,000,000. This was exclusive of silverware, which was figured separately. The four silversmithing establishments had a capital of \$1,108,000, and employed 367 people, paying them yearly \$207,648, and turning out wares valued at \$1,082,000. In that year the jewelry

business employed only less people than the cotton, woolen and iron industries in the state, and was third in the value of the products.

The census of 1890 gave the following figures: Number of establishments reporting, 179; capital invested, \$6,095,971; average number of employees, 4,551; yearly wages, \$2,657,158; cost of raw materials, \$3,301,814; value of finished product, \$8,011,067.

Besides the 179 manufacturing jewelers' establishments four silversmiths were reported. These had a capital of \$3,002,232; number of employees, 1,034; wages paid, \$780,935; cost of raw materials, \$1,045,860; value of finished product, \$2,509,869.

The jewelry and silverware industries have always been reckoned together in Providence, and although the national government separated them in the census of 1890, it will find difficulty in making a separation in 1900, for nearly all the leading jewelers are now likewise silversmiths, for reasons which will be explained further on. Therefore, the grand totals for the state should have read in 1890 something like this: Number of establishments reporting, 183; capital invested, \$9,098,203; average number of employees, 5,585; yearly wages paid, \$3,438,093; cost of raw materials, \$4,347,674; value of finished product, \$10,520,936.

Since 1890 there have been very many changes affecting the jewelry and silverware industry. The panic of 1893-4 served the double purpose of crippling the resources of the manufacturers, on account of failures among their customers, and of destroying their market, owing to natural economy incident to times of industrial depression. The fall in the price of silver proved to be a blessing to the manufacturers. A vast array of articles of both utility and beauty began to be made by the silversmiths. The price of these articles being much lower than ever before, and the decorations and forms more attractive, there arose a popular demand for what came to be known as "silver novelties." The manufacturing jewelers, having little demand for their natural products, turned their attention to the production of the smaller and less elaborate of these novelties. This new departure took such a hold on the manufacturers that at least a third of them, and possibly a half, now claim to be silversmiths. Department stores and fancy-goods houses sought imitation silver goods to sell at popular prices, and hence the quality of the wares made by many of the manufacturers became sadly debased. Legislation to protect the public from purchasing low-grade goods falsely marked "sterling" followed in many states, including Massachusetts, Rhode Island and Connecticut.

The jewelry industry for a hundred years has been subject to spasms of prosperity and periods of depression, but probably it has never known as discouraging a period as that from 1893 to 1897. Yet the number of establishments has increased rather than decreased, the old ones holding on in hopes of a return of happy days, and new ones being started by workmen or salesmen who were unable to retain profitable employment.

The greater part of the jewelry made in Providence and the Attleboros is sold to wholesale or jobbing houses, located in New York, Chicago, Cincinnati, St. Louis, Kansas City, Omaha, Pittsburg, Philadelphia, Baltimore, Buffalo, Boston, and other large cities. Since failures have become abnormally frequent among the wholesale dealers, some of the manufacturers have sought to place their goods directly in the hands of the retailers; and still others have done a thriving business by selling directly to the consumers through wide-spread advertising.

About 1884-5, the manufacturers in Providence and Attleboro formed a credit organization for their mutual protection. This is known as the Manufacturing Jew-

elers' Board of Trade, and about one hundred firms have membership therein. The offices of the board are in Providence. Dutee Wilcox is president, and Marcus W. Morton, secretary. The manufacturers who sell to the retail trade, quite generally belong to a similar organization, with headquarters in New York. Coincident with the establishment of a Board of Trade, in 1884, a trade journal, devoted to the jewelry and silverware interests, began to be published in Providence, and has been continued until the present. It was originally a monthly, but is now published every Thursday. The founders of this journal, which is called *The Manufacturing Jeweler*, were Albert Ulmann, of New York, and John A. McCloy, a Providence jeweler. Mr. Ulmann subsequently withdrew to establish a similar paper in New York, and Mr. McCloy died in 1893. The present proprietor is Walter B. Frost, who has been its editor almost from the beginning, whose father and grandfather were jewelers, and whose great-great-grandfather was Saunders Pitman, one of the original post-Revolution jewelry manufacturers.

At least seventy different buildings are required to accommodate the two hundred jewelry and silverware establishments of Providence. Some notable structures have been erected for this purpose, during the past half-dozen years. The Gorham Manufacturing Company has a mammoth industrial palace in the Elmwood section, where, in the fall of the year, as many as 1,400 hands are employed. The Manufacturers' Building, owned by the Kent & Stanley Company, Limited, located on Sabin, Beverly and Aborn streets, is a mammoth and magnificent structure, seven stories high, and chiefly occupied by jewelers. The Jesse Metcalf Building, located on Pine street, was built in 1896, and contains twenty-four modern jewelry factories. The Ada Building on Sprague street, the Ladd Watch-Case Company Building on Richmond street, the Fitzgerald Building on Eddy street, the Lederer Building on Stewart street, and the Dyer Street Land Company Building on Dyer, Peck, and Orange streets, are some other of the more notable structures.

While the scope of this article will not permit of giving a complete list of the firms who have made a worthy record in Providence, some of them are clearly entitled to mention.

The Ostby & Barton Company, in busy times, probably employ more people than any other distinctly jewelry-making establishment in Providence. They manufacture gold rings, and chiefly what is known as gold-band rings. The leading members of the corporation are Nathan B. Barton and Englehardt C. Ostby. From very small beginnings, they have built up a mammoth-business in the past fifteen years, employing when running to full capacity, not less than two hundred and fifty people, of whom the majority are skilled workmen.

Foster & Bailey is probably the largest concern making a general line of jewelry. They are also extensive silversmiths. The firm is composed of Theodore W. Foster and Samuel H. Bailey. They are practically the successors of Sackett, Davis & Co., an old-time house that cut a wide swath in the business years ago.

Dutee Wilcox is one of the older and more successful jewelers. He is one of the few manufacturers in Providence of high-class diamond mountings, and he is an extensive importer of diamonds. Mr. Wilcox owns the splendid Wilcox Building, an office structure, and has recently erected a fine building for his manufactory at the corner of Washington and Aborn streets. He has been the president of the Manufacturing Jewelers' Board of Trade from the beginning.

The Wightman-Hough Company is a leading locket-making house, and Walter S. Hough is the principal owner, Mr. Wightman having died a few years ago.

Martin, Copeland & Co. have been, for many years, prominent manufacturers of

gold chains, and about 1895 they added the making of spectacle and eyeglass frames to their business. Edgar W. Martin is the head of the firm.

One of the most successful jewelers is George B. Champlin, the surviving partner of S. B. Champlin & Son. He is a maker of gold rings and plated chains.

Hancock, Becker & Co., E. L. Spencer & Co., and George H. Cahoon & Co., form a group of successful manufacturers of gold jewelry. Rings set with diamonds and other precious stones, are leading specialties of these firms.

The firm of Hutchison & Huestis, composed of George W. Hutchison and Harvey Huestis, are prominent manufacturers of gold rings. They have been in the field for a score of years and have won a deservedly excellent reputation for their goods.

Payton & Kelley, consisting of Augustus V. Payton and Samuel H. Kelley are the successors of Payton & Hawkins, one of the old-time manufacturing houses mentioned above. They manufacture a large variety of small gold chains for eyeglasses and similar uses. They were the pioneers of this class of manufacture in the East.

John T. Quayle is the surviving partner of T. Quayle & Co., manufacturers of fine gold jewelry. Thomas Quayle, the founder of this house, was an Englishman, who brought excellent ideas as to jewelry from abroad, and who amassed a modest competency in the business. The present proprietor of the firm, Thomas T. Quayle, is the son of the founder.

The name of Waite has been an honorable factor in the jewelry business of Providence for many years. Daniel B. Waite was a jeweler who established a flourishing business previous to the war, and who carried it on successfully, with various partners, for a great many years. Mr. Waite died about 1888. His son, William H. Waite, is now president of the Waite, Thresher Company, a corporation which is the legitimate successors of the old firm of Waite, Smith & Co. This house makes a popular line of gold jewelry and silver novelties.

Charles D. Waite, another son of Daniel B. Waite, is the head of the firm of Waite, Mathewson & Co., who are manufacturers of charms, locketts, and pins in gold and plate.

The leading manufacturers of gold emblems for societies, which, of recent years, has become an important industry, are Irons & Russell, Harvey & Otis, and E. L. Logee & Co. The latter house has added a line of silver novelties to their emblem goods.

Among other leading houses are Potter & Buffinton, gold jewelers, a firm thirty years old, and very successful; S. & B. Lederer, one of the largest concerns, and among the most successful of the modern jewelers; C. Sydney Smith, a large manufacturer of gold chains, and a prominent man of affairs, having served as mayor of the city; Hamilton & Hamilton, Jr., extensive makers of rolled-plate chains; Michael Fitzgerald, a successful manufacturer of gold jewelry, and owner of the Fitzgerald Building, a hive of jewelry shops; William H. Luther & Son, the largest manufacturers of low-priced jewelry, and the Kent & Stanley Company, Limited, chain-makers and silversmiths, and owners of the Manufacturers' Building, the largest of the jewelry edifices.

Silversmithing, as indicated above, has taken on great proportions in recent years. The Gorham Manufacturing Company, in their busiest times, have employed as many as 1,500 hands, and regularly employ more than 1,000. The other silversmiths up to 1890 were J. B. & S. M. Knowles, now J. B. & S. M. Knowles Company, and Fessenden & Company. Silas H. Manchester is the surviving partner and pro-

prietor of the latter concern. Three houses, which have been added to the list, and which are exclusively silversmiths, are the Howard Sterling Company, who do a large business, and are originators of some very artistic work, and manufacture yachting-cups and other massive pieces; the Campbell-Metcalf Silver Company, of which E. W. Campbell is president, J. M. Metcalf, treasurer, and Truman S. Foote, secretary, a young and enterprising house, who make all kinds of silver flat-ware; and W. J. Braitsch & Company, who manufacture a popular line of goods, chiefly toilet articles, cane-heads and other small wares. The last firm is located in their own factory-building, built for their exclusive use, on Melrose street.

Naturally in a city containing 200 jewelry shops, the manufacture of jewelers' tools is an important adjunct to the business. Among the leading manufacturers in this line are the Mossberg & Granville Manufacturing Company, who moved from Attleboro to Providence in 1897; Henry Blundell & Company; Adams Bros., and the McWilliams Manufacturing Company. John McWilliams is the manager of this business. Mr. McWilliams had the honor to serve four years as collector for the Port of Providence, being an appointee of President Cleveland during his first administration.

The refining of waste materials from the factories is another prominent industry. The recovering of gold and silver from the sweepings and polishings in the factories is an industry of comparatively recent growth. Levi B. Darling, still in active business, was the first man to do much in this line in Providence. There are now about a dozen refineries, the largest and most important of which is that of John Austin & Son. The senior partner in this house is one of the wealthy men of the city, a prominent bank-president and director, and a leading man of affairs. Other important refining concerns are H. F. Carpenter & Son, Horace Remington & Son, George M. Baker, Brown & Dean Company, and Cornell & Andrews. The last named house, headed by W. Oscar Cornell, is one of the comparatively recent additions to the list, but also one of the most enterprising and successful.

Horology has always been closely allied with the jewelry business. Clocks and watches have been and are still sold chiefly by jewelers, and therefore any sketch of the jewelry business could not well ignore the fact that the finest hall-clocks made in this country, if not in the world, are made by Walter H. Durfee & Company, in this city. These clocks are chiefly of a very expensive character, and such as grace the halls of the four hundred in New York, and their compeers elsewhere. In this connection, it may not be out of place to mention that the Hampden Watch Company, now located at Canton, Ohio, originated in this city, it being first styled the New York Watch Company. After a brief existence here it was removed to Springfield, Mass., and remained there for many years, and was again removed to Canton, Ohio, about 1890. John C. Dueber, the great watch-case manufacturer, having purchased a controlling interest in the watch company's stock.

The jewelry business in Providence, which employs more people than any other industry in that city, except those of iron and wool, and in which more individual firms are engaged than in any other type of manufacturing, emerges from the trials, troubles and losses of 1893-7 in excellent form for future progress and further industrial triumphs.

CHAPTER CLXXVII.

STREET RAILWAY LINES OF RHODE ISLAND.

BY HENRY V. A. JOSLIN.



HERE are eight corporations operating lines of street railway in the state. These are the Union Railroad company, Pawtucket Street Railway Company, Woonsocket Street Railway Company, Newport Street Railway Company, Providence Cable Tramway Company, Interstate Consolidated Street Railway Company, Pawcatuck Valley Street Railway Company and the Pawtuxet Valley Electric Street Railway Company, with a total track mileage of 144 $\frac{1}{2}$ miles. Of these companies the Union, Pawtucket, and Woonsocket were chartered to operate with horse-power, the Cable Tramway by cable, and the others by electric power; the first to adopt electricity as a motive power being the Newport Street Railway Company. All of these companies are now propelling their cars with electric motors, the transformation from cable and horse-power having been made since 1890.

The history of street railways in Rhode Island began with the year 1861, but it was not until three years thereafter that the first street car was run. Throughout the country horse railroads were coming into prominence, and the superiority of the accommodations of the street car to those afforded by the omnibus was fast obtaining recognition as a more speedy and comfortable mode of inter and suburban transportation. It was then that the attention of the citizens of Providence and adjoining towns was drawn to the necessity for better facilities for travel within the limits of the city and its contiguous towns and villages; agitation of the subject was begun, and the result was the organization of several distinct companies for the promotion and operation of streets railroads. From 1861 to 1864 roads were projected and chartered, the movement for most of them being supported by men of capital interested in the section of the city or suburban district which the particular road was designed to benefit.

The first of these roads to be chartered was the PROVIDENCE, PAWTUCKET AND CENTRAL FALLS, which was incorporated in March, 1861. In May, 1863, the act was accepted, and one year later this pioneer street railway was opened to travel, connecting the city of Providence with what are now the cities of Pawtucket and Central Falls. The first president of this company was Hiram H. Thomas. During this time other roads had been prospected, but none of them became working lines until the formation of the Union Railroad Company. The same General Assembly that granted the charter to the Providence, Pawtucket and Central Falls Company, also granted charters to the Broadway and Providence Railroad Company, and the Providence and Olneyville Railroad Company. The latter company never accepted its grant, and the former did not organize until three years after it had obtained its franchise. Before, however, the Broadway company had obtained permission from

the city of Providence to lay its rails, the Providence and Cranston Railroad Company had been chartered and organized, and subsequently charters were granted to other companies having for their object the building of roads in the city of Providence, connecting with suburban districts. These were the South Main Street Horse Railroad Company, the Providence and Pawtuxet Horse Railroad Company, and the Elmwood Horse Railroad Company. The capital stock of these companies, as fixed in the original charters, was in no case excessive; that of the Pawtucket Company was not to exceed \$100,000, the Cranston Company, \$200,000, the Broadway company, \$100,000, the South Main Street Company, \$100,000, the Pawtuxet Company, \$200,000, and the Elmwood Company, \$100,000. The City Council of Providence, in August, 1864, had authorized the laying of tracks on Cranston street to the adjoining town of Cranston, and what was then High street to Olneyville in the adjoining town of Johnston, and in the following November the South Main Street, Elmwood and Pawtuxet companies were also authorized to begin operations. Before work on these lines was commenced it had become evident that so many different companies could not operate to their own or the public's advantage and convenience, on account of the fact that they were forced by their locations to use portions of the tracks of each other in order to reach with their cars the central business section of the city. This condition of affairs brought about a consolidation of interests, the wisdom of which has been fully appreciated by the people of the city of Providence, who, from the inception of the Union Railroad Company to the present time, have not been subjected to the annoyances and inconveniences which occur where independent companies use the same streets for passenger traffic.

The prime movers in this consolidation scheme, and the men who assumed the greatest financial responsibility, were William and Amasa Sprague, both of whom were then in control of large manufacturing concerns in the city and state, as well as being largely interested in other commercial enterprises. The result of the efforts for a consolidation of these several companies was the passage of an act by the General Assembly, in January, 1865, creating the Union Railroad Company, into which were merged all the street railways having charters, except the Providence, Pawtucket and Central Falls road. This new company was vested with all the property, rights and franchises of the separate roads to which it was the successor, its capital stock being fixed at \$700,000, which was to be distributed among the stockholders of the former separate companies in proportion to their respective holdings of stock in each. The Union Railroad Company was promptly organized, Amasa Sprague being its first president, and his brother William, who was then in the Senate of the United States, being one of the directors, the two together holding a controlling interest in the stock.

February 22, 1865, was a gala day in Providence, for on that afternoon the Union Railroad Company started its first car. The initial trip was run from Market Square, in the centre of the city, to the village of Olneyville, in the town of Johnston, *via* Westminster, Weybosset and High streets, and, its success being assured, the omnibuses on that route were withdrawn from service. In the fall of the same year the system had been so extended that cars were running on the Broadway, Elmwood, South Providence and the Cranston lines, and the street-car service in the city of Providence could then be said to be well inaugurated. At this time the road had an equipment of thirty-five cars and two hundred and fifty horses, and at the end of the year 1865 had carried seventy-three thousand six hundred and ninety-two passengers, the report of the first fiscal year showing two million three hundred and sixty-nine thousand two hundred and sixty-one passengers transported over its lines.

The growth of the business was rapid, and the company strove, so far as it was able, to meet the demand of the public for convenient facilities of travel to all sections of the city and suburban districts. In 1870 authority was obtained to lay rails on Broad street, between Thurber's avenue and Pawtuxet; on Friendship, Beacon and Eddy streets and Thurber's avenue; in 1871 on Richmond and Smith streets and Prairie avenue; in 1873 on Elmwood avenue to Roger Williams park; on Public and Franklin streets; in 1875 on Mill, Charles, Orms and Smith streets, on Federal and Bradford streets and Atwell's and Academy avenues; in 1876 on Brook, Meeting, Thayer, Hope, Governor, Waterman, Garver, Angell and Wayland streets; in 1880 on Olney and Camp streets, Branch and Douglas avenues; in 1883 on Tockwotton and India streets into the town of East Providence, and in 1884 on Manton avenue, Hospital and Bassett streets. From this time up to 1893, when the general transformation to an electric system was well under way, but few extensions were made.

In 1872 the Providence, Pawtucket and Central Falls road, the only independent road doing business in the city of Providence, was absorbed by the Union Railroad Company. The stock was obtained by purchase, the Union Railroad Company having been authorized to increase its capital to \$1,000,000. This was the year in which the Spragues were forced to make an assignment of their properties, and their holdings in this railroad company were soon after put upon the market. The value of these roads was recognized by Providence capitalists, who quickly purchased the stock which had been held by the Spragues, though the latter did not sever their connection with the company until 1876. About this time many improvements were made in the service, the results of which gained for the Union Railroad Company the reputation of being one of the best managed and equipped horse railroads in the country.

Mr. D. F. Longstreet, who for several years previous to 1872 had been in the employ of the company, was appointed treasurer and superintendent. Upon his recommendation, the use of the recording bell-punch, for registering the fares collected, was introduced, the hours of service of conductors and drivers reduced to twelve, and the men required to do duty in uniform, being given an increase in wages, graduated by their length of service.

In the year 1872 the question of superseding the horse with mechanical power was so seriously considered that an attempt was made to use a naphtha engine to propel a car, and an act was passed by the General Assembly, in 1873, allowing the company to use any motive power for the operation of its cars. Immediately after this a contract was made with the inventor, who agreed to build an engine of suitable size and shape, capable of propelling a car at an increased rate of speed over that run with horses.

The plan comprehended the building of an upright, four horse-power naphtha-engine to occupy the same location and space that was taken up by stoves in street cars, the power from the engine to be transmitted to the wheels by a system of gears, and controlled by a lever at each dasher-rail. The first trial demonstrated that four horse-power was insufficient, and, after eighteen months of experiment, it was found that it was necessary to have heavier and specially-constructed cars, with equipment capable of developing at least forty horse-power. From a commercial standpoint this plan of motive power was not feasible, and the project was abandoned.

In 1876 the Spragues withdrew from the board of directors, Lodowick Brayton succeeding Amasa Sprague as president and holding that position until his death in 1884, when Jesse Metcalf was elected president, Mr. Longstreet, vice-president and

general manager, and Cyril A. Babcock, secretary and treasurer. In 1885 the company was authorized to increase its capital stock to an amount not exceeding \$2,000,000, and in 1886 was permitted to subscribe for and hold shares in the stock of the Pawtucket Street Railway Company to an amount not exceeding forty per cent. of the total issue of stock of that company, which had been organized in the preceding year. In 1888 Mr. Longstreet resigned his position of general manager to accept a similar position in the West End Railroad of Boston; being succeeded by Capt. John R. Bartlett, then on leave of absence from the United States navy. It was at this time that the employment of electricity as a motive power for operating street cars began to receive the serious consideration of railway managers, the progress already made in its application having demonstrated that it was early destined to supplant the patient horse and plodding mule, while its more ardent advocates believed that it would be superior to the cable. The promoters of the so-called storage-battery car were prominent in exploiting their systems, and the management of the Union Company early set about an investigation of its merits with a view to its speedy adoption when it should prove successful in its operation. Storage-battery cars were in use on one of the New York city roads, and after an examination of these in the fall of 1889, the company ordered two to be built for experiment on its lines in Providence. At this time the Providence Cable Tramway Company, which had been organized in 1884, was building a road in Providence to operate cars by cable over College Hill to the eastern part of the city. This road was to accommodate a section that had been without adequate car facilities owing to the steep grade on College Hill, approximating to sixteen per cent., and was completed and opened for traffic January 1, 1890.

Its cars were run by cable on College, Angell, South Angell and Waterman streets from Red Bridge to Market Square, and thence by horse-power over the tracks of the Union Railroad Company to Olneyville.

In February, 1890, Mr. Bartlett resigned from the position of general manager, being succeeded by Albert T. Porter, who had been in the service of the company in various positions for twenty years, and in June of the same year Henry V. A. Joslin was engaged to promote the introduction of electricity, being elected to the position of secretary of the corporation. The movement for the substitution of electric power dates from this time, the first real efforts to that end being commenced in the endeavor to obtain from cities and towns the right to operate cars by the overhead electric trolley system. In the meantime two storage battery cars had been received by the company, but the experiments made with them soon demonstrated that they were not a success either electrically or commercially, and after they had been drawn back to the car house by horses on several trial trips further consideration of their use was abandoned. Throughout the country street railroads were being equipped with cars operated by the overhead electric trolley system, and the Union company realizing that that was the only feasible system began their preparations for its introduction. Its applications to the city and town councils, however, met with great opposition, many people claiming that the erection of poles for the support of the trolley wire was an obstruction to the free and unrestricted use of the streets and that great danger to life and property was to be apprehended from the transmission of electricity on overhead wires, at a voltage which was claimed by them to be extremely dangerous. The representatives of the telephone companies were foremost among the opponents to electric traction, giving as their main reason therefor that it would interfere with their vested rights by preventing them from using a ground return for their instruments, and that they would be forced at great and

unnecessary expense to build new lines for the establishment of metallic circuits. It was not until after many protracted hearings and much argument before committees of the city and town governments that this opposition was overcome sufficiently to obtain a favorable consideration of the trolley system of electric traction, and then the company was granted but a single line to be tried as an experiment. This route was the one from Dorrance street to the suburban village of Pawtuxet *via* Weybosset and Broad streets, and was opened for travel January 20, 1892, with twelve twenty-five feet body cars built by the Newburyport car company mounted on Robinson six wheel radial trucks. In 1891 the Union company purchased the stock of the cable Tramway company, Mr. Metcalf becoming its president, thereby obtaining control of the only other company operating street cars in the city of Providence. At the time of this purchase the cable company owned a well-equipped power station, fourteen grip cars, forty-four passenger cars and one hundred and twenty-five horses.

The change to electric power having been inaugurated by the equipment of the Pawtuxet line, and its successful operation having demonstrated to the people the great advantages of electric traction, opposition to its further installation was quickly withdrawn. The company then had before it the problem of how to meet the great expense necessary to transform the entire plant to an electrical system. The franchise which the company had at that time was subject to revocation by councils of the cities and towns in which street car lines were operated, and consequently it was not deemed advisable to enter upon an expenditure involving millions of money without some assurance being given to the company that it would not be disturbed in the exercise of its rights at the whim and caprice of annually changing city and town councils. Without a vested right to use the streets for a limited period of years, capitalists would make no advances where the tenure was so uncertain. To meet the dilemma in which the company found itself placed, on the one hand by the pressing demands of the people for electric car lines, and on the other by the inability to secure the necessary funds to provide for the great expense which a new equipment and power plant would require, it obtained from the General Assembly authority to make contracts with cities and towns for franchises for a term of years, not exceeding twenty-five, and also the right to issue its bonds, secured by a first mortgage upon its property, rights, privileges and franchises to an amount not exceeding \$3,000,000.

Under this authority, contracts for exclusive franchises were made with the city of Providence, and the adjoining towns, grants for the use of electric power were secured, and preliminary arrangements for a general transposition to an electric system were begun. Hardly, however, had some of the contracts been placed, before a movement was inaugurated by certain capitalists, who recognized the prospective value of the Union, Pawtucket and Cable Companies operating with an electric equipment, to obtain these allied properties. A syndicate was formed, which secured a majority of the stock of the Union Company, by purchase from the stockholders at \$250 per share, and the Pawtucket Company at \$125 per share, and on March 1, 1893, the United Traction and Electric Company of New Jersey, of which Nelson W. Aldrich (the senior United States senator from Rhode Island) was president, became the owner of a controlling interest in the Union Railroad, the Pawtucket Street Railway, and the Providence Cable Tramway Companies. Since then the Traction Company has obtained all the stock of all these companies, with the exception of a few shares in the Cable Company.

Nelson W. Aldrich, at the organization of these companies, on March 1, 1893, was elected president of each, and from that time the work of equipping the several

roads for operation by electric power was pushed with the greatest vigor, and on April 24, 1894, the last horse-car was withdrawn from the streets of Providence, and in a few months later the last horse-car on the Pawtucket system was also withdrawn. The cable road was the last one to be equipped with electric power, but, to dispense with the cable, it became necessary to provide a safe means of taking the electric cars up and down the sixteen-per-cent. grade on College street. To do this a counter-balance system was installed, similar to the one at that time in use in the city of Seattle, but, this failing to adequately meet the approval of the directors, an improved counter-balance was devised, by the superintendent of the Cable Company, M. H. Bronsdon, and substituted in its place, the workings of which have successfully solved the problem of surmounting a grade in excess of that which an electric car can overcome with its ordinary motor equipment.

As this device is the only one of its kind in use, a brief description may be of value. Briefly stated, a brick vault is constructed under the roadway, the top of which is supported on iron yokes, similar to the ordinary cable road, with a slot-rail for the passage of the grip. At the bottom of the vault is a track upon which the counter-balance weights travel. One end of a wire cable is anchored midway between the bottom and top of the hill, and is passed down in the vault around a pulley on one of two weights of five tons each, which are coupled together; thence up to and around a stationary pulley at the top of the hill; then down again and around the pulley on the other weight, and the other end of the cable anchored at the bottom of the hill. A grip is made fast to this cable, to which is attached a shoe to run above the slot-rail, and into which the grip-car engages, so that a car coming down hill causes the counter-balance weight to move along on its track at half the speed of the car coming down and at half the distance traveled by the car; the reverse of this operation occurs in the ascent of the hill. On this heavy grade is operated a double track, with a counter-weight system for each.

The present decade has witnessed a complete revolution in the operation of the Union Railroad, its greatest changes date from the time it came under the control of the United Traction and Electric Company. With an electric equipment the policy has been to consolidate its several lines so far as possible, to operate from as few stations as would probably house its cars. The old plan of having a barn for every route was discarded, and where two lines converged to a point where the same track was used by both, arrangements were made so that cars on both routes should be housed together. New and model houses were built where lines were consolidated, and on other lines alterations were made in some of the old car barns to fit them for the requirements of electric power.

The largest car house built by the company is situated at Olneyville and has a capacity of one hundred and fifty cars. This house, the general features of which are embodied in the others owned by the company, is a handsome, long and low brick structure, and was erected in 1893. All the improvements for handling and storing electric cars were considered in its construction, as well as the comfort of the employees who were to operate cars therefrom. The building is 360 feet long and 123 feet wide at its extreme breadth, covering an area of 46,000 square feet. At the front there are two entrances, with two tracks from the street into each, and in the inside of the house there are twelve tracks running its entire length. Between the two entrances is a bow projection forming a room which is fitted with all the appliances for washing cars.

In the rear of this wash-room and running about half way down the building is the pit-room occupying two-thirds of the entire width of the interior, with eight of

the twelve tracks running through it. Between the rails of each of these tracks is an open pit, five feet in depth, wherein the inspectors can readily move about to examine and work upon the running gear of the cars. In the rear of this room are eight tracks for the storage of cars, in addition to the four tracks running the full depth of the building outside of that occupied by the pit-room. There are two transfer tables for shifting cars across from track to track, one between the wash-room and pit-room, and the other at the rear of the pits. On the side of the entrance next the street is the office of the foreman, and at the other side the large bins for the storage of salt and sand. Provision is made for the comfort of the conductors and motormen in a room in an ell section of the building entered from the rear of the pit-room, where they can assemble during their lay-off, and in which are the lockers for the storage of their clothing. A portion of this ell-room is fitted with appliances for doing blacksmith and light machine work in connection with car repairs. The other car houses of the company are modeled upon the general plan of this building.

New cars became necessary with the change from horse-power to electric power, and the old fourteen and sixteen feet body-cars were superseded by a new equipment of twenty feet bodies, a few only of the best sixteen-foot cars being altered over into motor-cars. The new cars purchased since 1893 were made by Jones & Co., of Troy, N. Y. The principal equipment in use is what are known as the G. E. 800 and 1,000 motors with K. and K². controllers. Some few of the first equipment having the rheostat controller with S. R. G. motors. The motors are principally of twenty-five horse-power; the heavy grades of the several routes requiring two motors to each car for efficient service. The adoption of electric power also made necessary new tracks over nearly the entire mileage of the road, a heavier rail being required to withstand the greater wear caused by the increased weight of the motor-car. At the time of the purchase by the Traction Company there were thirty-seven miles of fifty-four-pound girder of the Providence pattern, and twenty-four miles of forty-seven-pound tram and centre bearing and four miles of ninety-pound girder rail, the latter being on the Pawtuxet route, where the heavy twenty-five feet body-cars were and are now operated. Before the advent of the electric road the weight of the rails used had been gradually increased from that of the first ones laid at the beginning of the era of horse-cars, when a sixteen to eighteen-pound rail spiked to a wooden stringer was considered sufficiently heavy. Now the entire system of the Traction Company is tracked with ninety, seventy and fifty-eight-pound girder, seventy-two, sixty and fifty-eight-pound tee rails, weights that are well adapted to stand the wear of electric cars, the total track mileage one hundred and one miles.

The power-house, built and occupied in 1893, is located on Eddy street, near Point street, on the west side of the Providence river, and furnishes power for the cars of both the Union and Pawtucket Street Railway companies. In construction and equipment it has no superior, the greatest care having been shown in the endeavor to secure the best results in the development of steam and electric power. The building itself is 258 feet in length by 84 feet in width, constructed of brick, and having a Guastavino tiled roof. Five Greene engines, built by the Providence Steam Engine Company, furnish the steam power, three of which are set crosswise of the dynamo-room and two lengthwise of the building, the latter being cross compound 1100 horse-power, each running at one hundred revolutions, directly coupled to 750 kilowatt generators, built by the General Electric Company. The three other engines are tandem compound 750 horse-power each, running at one hundred revolutions and directly coupled to 500 kilowatt General Electric dynamos.

A switchboard fitted with instruments of the most approved design completes the electric equipment of the station.

Under the dynamo-room there is a Wheeler Admiralty surface condenser for each engine, connected with Knowles compound pumps, the water for condensing purposes being taken from the Providence river through a 30-inch supply pipe. In the rear of the engine-room is the boiler-room, taking 96 feet in length of the main building. In this are at present installed four batteries of boilers, each battery of 500 horse-power, built by the Babcock & Wilcox Company, and one battery of Sterling boilers, the other accessories to the steam equipment being a Greene fuel economizer and Berryman heater.

THE UNION COMPANY at the present time operates twenty-two main lines, several of which are so sub-divided as to make upwards of thirty routes. The plan of the company for operating its lines in the city of Providence has always been to run them so far as possible to correspond with the natural currents of travel across the city in every direction, believing that to be more satisfactory to the people than was the one originally conceived, when the original charters were obtained, of terminating all lines at the centre of the city.

From time to time the number of lines crossing the centre of the city has been increased, with the purpose of giving to the people living in every section facilities to ride to any other section without change of cars. This mode of operating lines across the city, from different directions without a change of cars, was rendered practicable for the reason that nearly all of the main streets to the business section converge to a common point, so that where the lines cross the Providence river, they do so upon parallel tracks, over but one bridge.

Some idea of the growth and development of the electric street railway systems, owned by the United Traction and Electric Company, and operated under their chartered names of the Union Railroad Company and Pawtucket Street Railway Company (the Cable Tramway being under lease to the Union Railroad), can be obtained from a comparison of the physical conditions existing in 1892, the year prior to the consolidation, with those existing at the beginning of the year 1897. At the former date these companies had 1,700 horses, 27 electric cars, and 302 open and box horse-cars, operating on 84 miles of track; while on the 1st of January the rolling-stock consisted of 233 box and 203 open-cars, and 27 snow-plows, and were operating 120 miles of road. In 1892 the car-mileage was 4,049,413 miles, and the passengers transported 24,583,038; while for the year 1896, the mileage is reported at 6,676,643, the number of passengers being 34,097,557.

To develop these properties so as to secure the above results has required a large outlay of money, and the Traction Company has expended in the acquisition of the Union, Pawtucket and Cable Tramway properties, together with the cost of electrical equipment, power-house, line construction, car houses and track extensions, upwards of \$9,500,000.

In investing so large a sum of money, the Traction Company pursued a policy which would not only render possible a fair return for the investment, but would also prove of inestimable value to the communities in which its properties were situated, realizing that the greater and better facilities that were furnished to the people for comfortable and convenient travel, by so much more would its own financial interests be enhanced. That the company has given to the people of the cities of Providence and Pawtucket and adjoining towns a street car service unsurpassed in quality of equipment is without question, and has fully sustained the high reputation which the Union Railroad Company had gained before it became one of the properties of the United Traction and Electric Company.

THE PAWTUCKET STREET RAILWAY COMPANY was organized in 1885, Arnold B. Chace being its president. Its projectors had in view the providing of better street car facilities for the citizens of Pawtucket, Central Falls and Valley Falls, than they were then receiving from the single line operated by the Union Railroad Company. After its organization lines of track were built on several of the principal streets in these towns, two of which have since become the cities of Pawtucket and Central Falls, and the road was opened for travel on November 30, 1886. Owing to the narrowness of several of the streets in Pawtucket, the company was obliged to adopt a gauge for its tracks of four feet, and its first equipment was what were commonly designated "bob-tail cars." These were operated until the change to an electric system, which was begun in 1892 and completed in 1893, the road then having become the property of the United Traction and Electric Company.

The Pawtucket Company, when it first began to run electric cars, attempted the use of water-power to drive the electric generators, but was forced to abandon that plan at the very outset, and thereafter obtained its power from the Pawtucket Electric Light Station, until the completion of the power-house of the Union Railroad Company in Providence. Since the acquisition of the property by the Traction Company, extensions of lines have been made and additional cars have been added, so that the service is now one that affords very convenient facilities for street-car transportation between the two cities of Pawtucket and Central Falls and the adjoining towns of Valley Falls and North Providence. The equipment of this company consists of twenty-eight box and eighteen open cars, operating on twenty miles of track.

THE WOONSOCKET STREET RAILWAY CO. was organized in June, 1886, to operate cars in the city of Woonsocket. The capital stock is \$100,000, its equipment consisting of six motor and ten other cars. Its track-mileage covers six miles of single track in Rhode Island and one mile in Massachusetts, and its passenger traffic is somewhat over six hundred and fifty thousand passengers yearly.

THE NEWPORT STREET RAILWAY COMPANY was the pioneer electric street railway in the state. It was organized in July, 1888, opening for traffic in the city of Newport the following year, after the most determined opposition. Its tracks are wholly within the city limits, their length being four miles. On this road are operated nine motor cars, carrying some 800,000 passengers annually. Its capital stock is \$107,000.

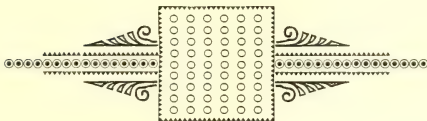
THE INTER-STATE CONSOLIDATED STREET RAILWAY COMPANY was reorganized April 20, 1895, its principal field of operation being within the state of Massachusetts, in the towns of Attleborough, North Attleborough and Wrentham, only about five of its twenty-four miles of track being in Rhode Island. The original companies were the Attleborough, North Attleborough and Wrentham Street Railway, and the Interstate Street Railway. These had been built and were operating cars into the city of Pawtucket, from Attleborough and North Attleborough in 1892, and had obtained extensive grants in and through the city of Pawtucket, into the centre of the city of Providence, though no line was constructed in the latter city. The purpose of the projectors of the original Interstate company was to extend the Attleborough system into the city of Providence, and thus to furnish a more direct communication by rail than was afforded by the steam railroad between these two places.

Upon the change of ownership of the properties of the Union and Pawtucket companies, in 1893, further extensions of the inter-state roads were abandoned, and overtures were made for the disposal of the inter-state system to the United Traction and Electric Company. This was not accomplished, through failure on the part of

the Inter-state Company to carry out its part of a proposed agreement with the Traction Company. During the pendency of negotiations, the operation of the road was suspended on account of the destruction of its power-house by fire, and the road was placed in the hands of a receiver. At a foreclosure sale the property was purchased by a syndicate, at the head of which was Marsden J. Perry, who is now the president of the reorganized company. Upon its reorganization a new equipment was provided, and its lines were soon after put in successful operation between Pawtucket, Attleborough and North Attleborough and Plainville.

THE PAWCATUCK VALLEY STREET RAILWAY CO. was organized May 25, 1893, with a capital stock of \$75,000. It has an equipment of seven cars operating upon seven miles of track between Westerly and Watch Hill.


THE PAWTUCKET VALLEY ELECTRIC STREET RAILWAY CO. was organized July 23, 1893. The promoters of this company proposed the building of electric car lines in a group of manufacturing villages on the Pawtucket river, and eventually a connecting line to the city of Providence. Before, however, any road was built, the United Traction and Electric Company secured a controlling interest, and it practically became one of its properties. Seven miles of track were laid in 1894, and on July 21st of that year the road was opened for travel. Its equipment consists of eleven cars, and are operated between the villages of Clyde and Washington, and between Fiskeville and Crompton.



CHAPTER CLXXVIII.

THE INDUSTRIES OF RHODE ISLAND.

BY SCOTT A. SMITH.

N beginning this subject, the industries of Rhode Island, we may pay, at least, the tribute of a few words to that people, the American Indians, who have now passed from the face of the land, but who had dwelt upon these hills, lowlands, shores and waters for an indefinite number of years, or centuries, previous to the coming, in the early part of the seventeenth century, of their dispossessors, a superior and conquering race. Undoubtedly a white people, in earlier ages, had appeared for purposes of settlement on these shores, but they were of a different type, and impelled by not the same seeking for a freer home; also they were not then as self-sustaining as agriculturists and manufacturers. Neither did they have the aggressive superiority given, later, by improved fire-arms with which to resist and conquer in the inevitable conflict for ultimate possession of the country.

There exist traditions of the very early incoming of Welsh explorers, or immigrants, who were, it is supposed, absorbed into the tribes, and their language and their identity lost, in passing generations, leaving only the faintest shadow of a reality.

On the coming of the English, June 23, 1636, into the region now the state of Rhode Island, the industries of the then possessors of the soil, the Indians, were wholly in the period of the stone-age. The stone-age of Europe continued into the age of copper, which latter commenced about 1100 to 1000 B.C., yet the termination of the stone-age for the Anglo-Saxon race cannot but be placed much later. But they were of the always rapidly developing Aryan white race, and how could the Indian evolutionized only into the stone-age, and thus at least 1,500 years in arrears, hold a co-existence with an evolved man, of a higher race, so many centuries his superior?

Aside from tilling the soil, along-shore fishing, and the erection of habitations for man and beast, and for the storing of food and utensils, the first industries which Roger Williams and his associates found to their hand was the building of wind and water-mills for the grinding of grain. Then after came the saw-mill, the building of boats for fishing and inland transportation, and the building of ships. Coeval with these latter came the establishment of furnaces to melt the bog-iron ore, then forges for the making of tools of industry, parts of wagons, etc. Also the iron-work and anchors for ships and boats. Furnaces and forges were located where the tumbling waters of the Blackstone, Pawtuxet or Woonasquatucket could be utilized to blow the furnace or forge, and lift the tilt-hammer.

An early Rhode Island industry, which continued in part until 1861, was the

making of "shooks," or the parts of casks for the West Indies' trade. Outgoing ships carried to the West Indies these industrial products, together with hoop-poles and various provisions from the soil, cattle and horses in the early years; and in return came much molasses to be made into rum, both for domestic use (always made present at the "raising" of a building to exert its latent mechanical force), and for export to the West Indies, and the coast of Africa. To the early settlers these things aided to build up the fortunes of those days; returning ships from Africa brought slaves, to the no little enhancing of individual wealth.

The origin of textile and other kindred industries: the very restrictive measures, as laws, adopted by the English government against the development of manufactures in the colonies, and the utter prohibition of the taking out of Great Britain of any models, drawings or parts of machinery; together with the interruptions to commerce, and local necessities, caused by the wars of the colonies in aiding England against the Dutch, French and Spanish; also the wars of the Revolution and 1812; all these taught the Americans (in opposition to the sophistry of those who build theories on half truths) that this country, removed three thousand miles—equal to six thousand miles of traffic travel—must be self-sustaining and independent in all its needs. And humanly speaking—humanely also—it is impossible that all men should be successful tillers of the soil, with accompanying labor requirements. Man has become by instinct and heredity best fitted for one out of very many occupations, and cannot in the great majority of cases be otherwise than he is, of single ability or gift. Hence came a knowledge that we should be ever independent, prosperous and free, in fact as well as in name.

Aside from agriculture the first historical mention of any industry in Rhode Island was, that in November, 1638, a water-mill was projected by Mr. Nicholas Esson.

Boat-building commenced in January, 1639. This year a ship-load of cask staves and clapboards was obtained at Portsmouth, R. I. Lumber was sawed "at the pit" in 1639-40.

A 150-ton ship was built in 1646, probably at Newport, and it is possible, or probable, that others had preceded. There were this year in Providence a grist-mill, saw-mills, blacksmiths and shoemakers. With ship-building came blacksmithing, also the making of tar and rope-making. In 1647 appears the first record of apprenticeships; the term was eighteen years.

About 1655 Joseph Jenks came to Pawtucket from Lynn, Mass., where his father Joseph Jenks, is credited with being the first founder who worked in brass and iron on this continent; he built a forge in a deep ravine on the west bank of the river, a short distance below the falls. His four sons worked with him, and here commenced several small manufactures, but the restrictive laws of England imposed upon the colonies kept back enterprise in manufactures. In 1656 a grist-mill existed in the town of Warwick.

Permission was granted to Mr. Hacket to burn lime; probably the stone was taken from deposits in Lincoln; previous to this date the source of lime was most likely from the vast heaps of shells accumulated by the Indians.

In the layout of the home lots (1664) of the original proprietors of Providence, the mill of John Smith is shown at the junction of the "Mooshausick" river with "Great Salt Pond." Probably established in 1646, he used wooden stamps to pulverize corn.

In 1666 Mr. Arnold built a saw-mill on the Blackstone river.

April, 1676, four gun-boats were ordered to be built to patrol around the "Island

of Rhode Island" to prevent invasion by the Narragansett Indians. From 1697 to 1708 eighty-four vessels, both sloops and ships, had been built.

At this date, 1709, mention is made of the intention of a Mr. Bradford to put up a printing press at Newport.

In 1712 John Arnold built a corn and fulling mill upon an island in the Blackstone river. The old forge dated from between 1712 and 1720. Later than 1712 a scythe factory was established below the grist mill.

In Warwick, between 1720 and 1730, General Nathaniel Greene, with several of his brothers, carried on an extensive business of forging anchors. They also had a grist-mill in connection with their forge.

In the year 1721 Samuel Bissell, a blacksmith of Newport, was granted a loan of £200 to commence the manufacture of iron nails. The preparation of hemp and flax had existed before 1721.

In 1722, a bounty of £1 was voted to William Borden for each bolt of hemp-duck made, to be equal to Holland duck. It is not to be omitted that Peter Harrison, architect (who had assisted in building Blenheim House, in England), came to Newport in 1726 (?). He designed Redwood Library, the Newport State House, also Trinity Church (completed in 1726). The clock was made by William Claggett, who lived in the town a quarter of a century.

Again, in the year 1728, or 1729, there arrived in Newport, Smybert, painter; his presence for some years in Newport, and the paintings he left, did much to stimulate the love of art in America, and to encourage the young efforts of Copley, Trumbull, Allison and Malbone.

"To encourage the whale and cod fisheries, a bounty of five shillings was voted for every barrel of whale oil, one penny a pound for bone, and five shillings a quintal for codfish caught by Rhode Island vessels." Rhode Island's shipping now amounted to five thousand tons—ships, brigs and sloops. "The articles of export comprised horses, live stock, logwood, lumber, fish, and the products of the field and the dairy, and amounted to £10,000 annually. Most of the supplies were received from Boston, but two vessels arrived annually from England, as many from Holland and the Mediterranean, and ten or twelve from the West Indies.

In September, 1732, James Franklin commenced to publish the *Rhode Island Gazette*, a weekly; a single sheet, 8 x 12 inches.

In June, 1733, the sloop "Pelican," owned by Benjamin Thurston, of Newport, arrived in that port with one hundred and fourteen barrels of oil and two hundred pounds of bone.

In 1735, Samuel Waldo erected Hope Furnace, on the Pawtuxet river. This appears to have been one of the first successful foundries within the colony, though at the time it was built, there had been three furnaces at Cumberland, which were, however, then shortly abandoned. These furnaces were in the nature of smelting furnaces and foundries combined. They used Rhode Island bog-iron ore, mostly mixed with ore from Pennsylvania.

About the year 1738, the manufacture of axes was introduced into Rhode Island (and Connecticut), by Hugh Orr. The coal used in these several industries was char coal.

In June, 1740, the sloop "Tartar" was completed by the colony for use in the service of the colony in the war England was then waging against Spain. She had twelve carriage guns, and as many swivel guns.

Rhode Island had always with an independent spirit encouraged new sources of trade, and "patent rights" were readily granted to any who would introduce new

manufactures. In 1761 an exclusive right was granted for ten years to James Lucana to manufacture castile soap.

The third newspaper in Rhode Island and the first in Providence was commenced by William Goddard, *The Providence Gazette and Country Journal*. About 1762 Daniel Jackson established brass founding in Providence, and new iron foundries were erected about this period.

For the year 1763 there were one hundred and eighty-four foreign clearances to Europe, Africa and the West Indies, and three hundred and fifty-two vessels engaged in the coasting trade and fisheries.

Non-importation agreements were at this time, 1765, entered into by the leading merchants of America (following after the example of New York), and a combination was made for the support of American manufactures; also to increase the supply of wool by ceasing to consume either lamb or mutton.

There arose this year, 1766, the Daughters of Liberty. They resolved to purchase no more British manufactures. They offered a handsome piece of home-made linen as a premium for persons who should raise the largest amount of flax during the year in the county of Providence. A paper-mill was established at Olneyville this year.

Another bed of iron-ore was found at Cranston, and in (1765?), 1767, a company was formed to mine the ore at a place known as the "ore bed." The business was successfully carried on for a number of years. Large quantities were sent to supply other furnaces of the country. Much was sent to the Hope furnace in Scituate. From the metal afterwards cannon were cast which were used in the Revolutionary War. At present the mine is filled with water. Coal was at one time mined on the slope of the Sockanosset hill, Cranston. Up the Blackstone valley, at Union Forge, so called, now Manville, was an extensive blacksmithing establishment, where Oziel Wilkinson, with his seven sons, all of whom afterwards became noted in the industrial history of the state, was engaged in the business of iron working (See also under date of 1783).

In the year 1769, at Newport, with a population of 11,000, there were seventeen manufactories of sperm oil and candles, five rope walks, three sugar refineries, one brewery and twenty-two rum distilleries. Nearly two hundred vessels were employed in foreign commerce, among which was a regular line of London packets, and between three and four hundred coasting craft conducted the domestic trade. Between 1769 (or before that time) and 1775 the manufacture of fire-arms began to be extensively carried on in Rhode Island, while the casting of sixty heavy cannon, besides field pieces at the iron works, superseded for a time the forging of cables and anchors.

Between 1746 and 1774 a very considerable trade was carried on between the "planters of the king's province" and the West Indian islands. Great numbers of a famous breed of horses, the "Narragansett pacers," were exported at that time. The pacers were of great power and endurance, although small of size, like the mustangs of the western plains. They could easily perform journeys of one hundred miles a day, if properly cared for. Like mustangs, they were of Spanish origin, having originally come from Andalusia. The breed is now extinct. Before the Revolution the pacers became so much sought after in Cuba that all the better animals were shipped there.

A Mr. Upton came from Nantucket, 1774-5, to East Greenwich, where he set up a pottery; it continued there only during the war. From just before the commencement of the war to its close little advance was made in manufacturing, except as to gunpowder, cannon, guns, muskets, swords and pistols, which were

made in and around Providence. The only invention in the arts of peace noted was the cold-cut nail, made by one of the Wilkinsons, who had previously, in 1775, made the first cold-cut tacks known in America. After the close of the war John Brown established at India Point a glass-house, and rope walks, and a ship-building establishment was located near.

August, 1775, a bounty of three shillings a pound was offered for the manufacture of saltpetre. Eight field-pieces were ordered to be cast at the two iron foundries. In October the manufacture of saltpetre was undertaken by the colony.

May, 1776.—Of the thirteen frigates ordered by Congress in December, 1775, two were to be built in this colony at Providence, the "Warren," of thirty-two, and the "Providence," of twenty-eight guns.

May, 1777, a premium of £60 was offered for every ton of steel, similar to the German, that should be manufactured in the state.

March, 1779, a second newspaper (weekly), styled the *American Journal and General Advertiser*, was commenced in Providence. Oziel Wilkinson, with his family, removed in 1783 from Smithfield to Pawtucket. He and his five sons were all blacksmiths. Some of the large anchors then in the country were made by them, besides the cold-cut nails before mentioned as first made by them. They also were the first to cast cannon solid to be afterwards bored by water-power. Thus Pawtucket, on both banks of the river, became the principal centre of the iron manufacture in this part of the country. Hannah, a daughter of Oziel Wilkinson, married Samuel Slater, and the Wilkinsons were afterwards engaged in the manufacture of cotton goods with Samuel Slater.

The first importation to Providence of cotton, of which record has been found, was a bag of nearly ninety pounds of "cotton wool," brought by sloop "Fox," May, 1785, from Hispaniola to Thomas S. Halsey.

November, 1786, although the scarcity of money was so great that land rents were paid in corn, and barter became almost the only mode of trade, yet industrial pursuits were not neglected, and domestic manufactures were encouraged by acts of legislation. The beginning of American cotton-spinning dates from this period. Attempts at producing machinery suitable for the purpose were aided by the legislature of Massachusetts. A company was formed in Providence to prosecute the business. The first spinning jenny constructed in the United States was made by them. It had twenty-eight spindles made by Daniel Jackson, an ingenious copper-smith in Providence. A carding machine and spinning frame were also procured, and the machinery was set in motion, in the following year, in the chamber of the market house, upon the manufacture of jeans, a fabric having linen warp and cotton filling. Daniel Anthony, Andrew Dexter and Lewis Peck were the co-partners in the first enterprise in that department to which the state owes so much of its prosperity and importance.

One source of wealth accumulation which enabled Rhode Island men to afterwards engage largely in manufactures was the beginning, in November, 1787, of the East India trade, when the ship "General Washington" cleared at Providence for that region. This trade continued until 1841.

The fly shuttle seems to have been introduced into the United States by Joseph Alexander at Providence in 1788.

January, 1789, a rolling mill and slitting mill was established near Providence for preparing iron to be made into nails, a branch of industry that under British rule was forbidden to the colonies. At just this time there were frequent meetings of women, in all ranks of life, to spin flax. A great deal of linen yarn was made in this

way, and no woman considered it beneath her dignity to devote a portion of her time to this effectual mode of redeeming the fortunes of her country. The encouragement given to domestic industry was universal. Men appeared in home-spun garments and American woollen garments were worn in preference to foreign fabrics.

The Providence Association of Mechanics and Manufacturers was incorporated in March, 1789, an institution that served to organize the efforts then existing to develop the resources of the state, and whose beneficent influence steadily increased. The manufacture of cards had been introduced into Rhode Island, and it is said that in 1789 a carding factory at Providence sold cards in England at a profit. September, 1789, a drawback upon rum, sugar and chocolate manufactured in the state for exportation was allowed. In 1789-90 John Fullem, an Irish stocking-weaver, set up a stocking-frame at East Greenwich, which he afterwards sold to Moses Brown. The need of improved methods in spinning was fully realized in Rhode Island, as in 1790 there were made in the households 30,000 yards of woollen cloth, and in 1791 25,263 yards of linen, and 5858 yards of cotton, the latter probably a cloth with a woollen or linen warp and cotton filling, as cotton then could not be spun into a suitable warp.

"Jennies" and "billies," with cards for spinning cotton filling, had in 1790 been set up in Providence and other places. At this time the invention of Richard Cartwright of a system of power spinning, for some years in successful operation in England, had been kept secret, so that American mechanics had been obliged to rely on their own resources. But in April, 1790, William Almy, Smith Bowen, and Samuel Slater entered into a copartnership to carry on the spinning of cotton. Mr. Slater had recently come from England, where he had worked under Strutt & Arkwright for eight years. He came without drawings or models, for the British government at that time prohibited the exportation of machinery, models and drawings. In fourteen months Mr. Slater constructed a complete series of machines on the Arkwright plan, and put them into successful operation at Pawtucket. On this machinery was made the first cotton thread ever spun by power [water-power] in the United States. It was capable of spinning cotton warps superior to linen. Before this time, in 1787, Daniel Anthony, in connection with three other mechanics, made a spinning-frame of thirty-two spindles, which was set up and operated by hand-power, making the first thread ever spun in the state, if not in the country, by other means than the spinning-wheel. However, it was too heavy to run by hand-power and too loosely made to stand the strain of running by water-power, as was shown when the same was sold to Moses Brown and he attempted to operate it by water-power at Pawtucket. As might be expected, the general principles of cotton spinning were soon applied to the spinning of wool, but, however, the first attempt at woollen manufacture in a factory in Rhode Island was at Peacedale, South Kingstown, in 1804, when Joseph Congdon and John Warner Knowles set up a carding machine at that place. At this time all the weaving of cloths in this country was done on hand looms. The first power-loom employed in this country seems to have been employed in the woollen industry, and was invented by Thomas R. Williams about the year 1812, intended for the weaving of saddle-girths and other webbing. These looms were started in 1814 at Peacedale, in South Kingstown. The first power-loom employed in the cotton manufacture was made by David Wilkinson, being an improvement upon a Scotch power-loom which was brought to this country by William Gilmour, and the improved loom was set up in the Lyman mills, North Providence, in 1817. Although laboring under the disadvantage of depending upon hand-work for their weaving, the cotton-spinning mills had been increasing rapidly, and in 1815 there were within a

radius of thirty miles of Providence over 140,000 spindles in use, spinning and using 29,000 bales of cotton, for the making of 27,840,000 yards of cloth annually. These mills were in small buildings, and one of 700 spindles was for that day large, while mills of 180 to 240 were not rare. In 1807 there were in Rhode Island but twelve cotton mills; in 1810 but eighteen and seven in process of construction. From the yarn was woven tickings which sold at 45 to 90 cents per yard; checks sold at 30 to 42 cents per yard; sheetings, at 35 to 75 cents per yard. In the woollen industry Rhode Island, in 1810, had twelve mills. There were thirteen rope-walks, and twenty-eight saw-mills. In 1814 the hemp and flax industry in Rhode Island ceased to exist.

The first "steamboat" that ever sailed on the waters of Providence river was one invented by Elisha Ormsbee in 1792. It was run by an atmospheric engine, and attained a speed of four or five miles an hour. David Wilkinson, of Pawtucket, made all the iron-work for the vessel.

"In March, 1793, the mill of Almy, Brown & Slater, at Pawtucket, had seventy-two spindles." At this time, so it is mentioned, there were manufactured in Providence cordage, twines, lines and pack-thread.

"East Greenwich has the honor to have printed the first 'calico' in America. Some time previous to 1794 a man named Dawson erected print-works and carried on the business. The material used was linen spun and woven in the families in the town." The first calico printing in Providence was about this time commenced by Messrs. Schaub, Tissot and Dubosque on the present site of the Franklin Machine Company. Three years later the calico printing was carried on by Peter Schaub and Robert Newell. This year Samuel Slater made the first sewing-thread of cotton; its manufacture extended to Europe. David Wilkinson worked in his father's blacksmith shop on Mussey's brook, a small stream which empties into the Blackstone river above Albion; he was the inventor of the sliding-lathe, for which he received a patent in 1798. In 1848 Congress made an appropriation to him of \$10,000 as a remuneration for the benefit accruing to the public service for the use of the principle. He also constructed a working steam-engine, which was placed in one of John Brown's India ship's boats, operating successfully.

Elisha Bartlett this year—1795—commenced the manufacture of scythes, which he continued until his death in 1804.

The act of Parliament of 1786, prohibiting the exportation of tools and machinery used in the iron and steel manufacture, was made perpetual. It recapitulates the several descriptions of machines, engines, implements, utensils and models, or parts thereof, employed in rolling, slitting, pressing, casting, boring, stamping, piercing, scoring, shading or chasing, and die-sinking iron and other metals. It included machines used in the button, glass, pottery, saddle and harness, and other manufactures, wire moulds for paper, etc. It proved afterwards, as it had before, extremely embarrassing to new branches of manufactures in the United States.

July, 1795, "at North Providence, on the Pawtucket, were at this time three anchor forges, one slitting-mill, three snuff-mills, two nail-cutting machines, one tanning-mill, one grist-mill, one cotton factory, one clothiers' works, and three fulling-mills, all carried by water.

The manufacture of straw plait, or braid, for hats and bonnets, was originated at this time in Providence, which grew to be an extensive business.

Previous to 1800 there were several tanneries in existence in East Greenwich.

Four manufactories of silverware existed in Providence making silver spoons, gold beads and finger-rings. Also it is said they made breast-pins, ear-rings, watch-keys and other articles. But the making of jewelry dates back to 1784, when

Saunders Pitman and Cyril Dodge were making some articles of jewelry. In 1794 Nehemiah Dodge started a great impetus in the making of jewelry by soldering a thin sheet of gold upon a thick sheet of copper, then by hammering and hand-rolling he reduced it to a proper thinness.

Mention is made under this date, 1807, of the old grist-mill in Centreville, Warwick, on the west side of the river: in the basement was a machine shop with a trip hammer, where were its noisy operations mingled with the racket of the saw and grist-mill in the second story. In the story above, the miller's family lived, and in the attic was a wool carding-machine. When all of them were in motion the miller's family had little quiet.

About this time, 1807, an attempt was made by Jonathan Nichols and David Grieve, two ingenious mechanics of Providence, to propel a vessel by means of screws moved by horse-power. The vessel was three-masted, the "Experiment," about one hundred feet in length. It was propelled from Eddy's Point to Pawtuxet. The power was supplied by eight horses, giving an average speed of four knots an hour with wind and tide, but without sails. While being towed to Boston she was lost in a gale. It was considered that this experiment proved the possibility of screw propulsion.

Nehemiah Atwood had a saw-mill and grist-mill in what is now Phoenix before 1810-11. A saw-mill and grist-mill was built in 1810 in Pontiac. In Rhode Island, this year, fifty thousand hats worth five dollars each were made, exclusive of felts. This year there were in the state four paper mills. The manufacture of sail-duck was suspended on account of the high price of hemp and lack of capital. Straw hats and bonnets were made with great success and exported to other parts of the Union. The jewelry manufacture of Providence employed about one hundred workmen, and the product amounted to \$100,000 annually.

The first steam engine used in Providence was one of "thirty horse-power," built by Evans, of Philadelphia, put in operation this year in the mill of the Providence Woollen Manufacturing Company, whose factory occupied the site of Philip Allen & Company's print-works. This woollen-mill was the largest in the United States, producing daily from thirty to sixty yards of woollen cloth.

William Gilmour, before mentioned, came to Rhode Island in 1814 from Glasgow, bringing patterns of the power-loom and dressing-machine used in Scotland. He introduced into the Smithfield cotton mills the hydrostatic press of Bramah, for pressing cloth, and his power-looms and dressing-machines.

The second steam engine, erected in Providence, was one of "twenty-four horse-power," by Evans, put up by Messrs. Whitney & Hoppin, in one of the buildings, recently standing (1866), of the Providence Dyeing, Bleaching and Calendering Company. It cost \$17,000, a large part of which was for transportation from Philadelphia.

The return of peace with England, and the general pacification in Europe, caused a great revulsion in manufacturing enterprises in the United States, owing to a great influx of goods from Europe; thus for several years there was a general depression in the manufacturing outlook. In all new countries the value of labor is on a higher plane than in the older countries, hence manufactured articles must cost more in the new country. Economies, with the laboring class, in living do not prevail in new countries as in old, and "ambitions" run higher in newer countries in dress. The climate in America calls for much stronger nutrition for the laboring people; food is taken oftener in England, but is of a less costly kind. Capital is more abundant, and costs less in old countries. Hence, to keep up our manufactures

as a new country, we must, whether or no, put a tariff on imports. England is the only extreme free trader in Europe, and she became so only after she had once, and for all time, destroyed the Dutch navy; then in 1801 she destroyed the naval power of Denmark, when the latter threatened to unite with the Baltic states; then, lastly, England in 1805 destroyed the united navies of Spain and France, at the battle of Trafalgar. Thus England became the mistress of the trade highways of the whole world. Then, with her supremacy in capital, and in manufactures, she soon proclaimed the universal doctrine of free trade, for her sole and only benefit. These were the conditions which existed for American manufacturers in 1815, and have continued since.

Wednesday, May 26, 1817, the steamboat "Fire Fly," from New York, came into Newport harbor, after a trip of twenty-eight hours. She was the first steamboat to go around Point Judith. She was of one hundred and eighteen tons, and built in 1812 in New York. On the next Friday she made the round trip from Providence to Newport and back in eleven hours. She ran for a time between Providence and Newport, but the enterprise was not a profitable one, and was abandoned. The "Fire Fly" cost \$20,000; her engine was of twenty-five horse-power.

This year, owing to the distress of business, the cotton manufactures of Rhode Island had entirely suspended business. Following the example of his predecessors, the President of the United States wore, on his inauguration, a suit of American cloth, from a Pawtucket manufactory.

December 13, 1817, David Wilkinson & Samuel Greene, Pawtucket, advertised that they were prepared to make power-looms and press-screws, power-looms, with all apparatus for weaving; cotton and woollen machinery of all kinds, castings of iron or brass.

Manufactures were revived in 1818. Rhode Island manufacturers joined with others from nine states at a meeting in New York, August 27, 1819, to take into consideration the prostrate condition of manufactures. The previous year, 1818, Dr. Dyer, of Providence, planted about forty acres of land, near the city, with currant bushes for the manufacture of currant wine. It became for a time a profitable business.

This year (1819) the ship "Governor Tompkins" arrived in Providence, in October, with a cargo of 1,981 bushels of coal from Newcastle, England. During the early years of the century and until 1831, nearly every Liverpool ship brought coal as part of its cargo. In July, 1831, a vessel arrived from Sidney, N. S., with a cargo of coal, and these importations continued for many years.

At Arlington are stone quarries, where work was commenced in 1820, and was still carried on in 1881.

This year a manufactory of vestings, worsted and silk cloths, recently established in Providence, was said to be the only one of its kind in the country. However, a small manufactory of only seventy-two spindles, in Bristol county, had produced vestings of fine texture, and many other kinds of worsted and fine cloths which had excelled expectations.

A. Doane, Pawtucket, manufactured in 1821 brass and steel reeds. Samuel Perry, Pawtucket, in 1822, manufactured brass, steel and cane reeds. May 20, Pawtucket Nail Company consisted of David and Daniel Wilkinson. June 3, steamboat "Connecticut" left New York for Rhode Island to make part of a permanent line of steamers to Providence. She arrived in Providence June 6. The "Fulton" arrived June 20, twenty-five hours from New York.

June 6, Edward B. Harris and Benoni Harris announce that they are finishing a



W. T. Nicholson

new shop in Cranston, with engine and all apparatus necessary for making cotton and other machinery Bolles & Manchester, West Greenwich, manufactured at the Liberty Factory satinetts, carded wool and dressed cloth.

Newton Darling, in 1824, commenced the manufacture of scythes in Smithfield. Rhode Island in 1823, in proportion to its population, was more largely engaged in manufactures than any other state. At the fair in Providence Dr. Benjamin Dyer wore a complete suit of silk material, produced and manufactured in his own family.

A print works was established in the Mooshassuck Valley, near the "Butterfly Factory," by Samuel Arnold and Governor Lemuel H. Arnold, in 1826.

This year at the exhibition of the Franklin Institute, in Philadelphia, a lace dress made in Pawtucket took a premium of ten dollars, and was afterwards purchased by the President of the United States, showing the progress of finer manufactures.

In the preceding pages and paragraphs has been given a partial history of the beginning of Rhode Island, industries established through the many and various difficulties incident to the overcoming of a wilderness, a savage war long continued, the following colonial wars, and finally the seven years' war of the Revolution, and of 1812 to 1815 against England. Judicious patent laws to induce inventions, and at times a sufficient protection by tariff laws have forwarded the manufacturing enterprise of Americans who have, in addition, the stimulus of the free air of a republic.

It remains only to mention certain prominent industries and firms as standing typically for the whole list; to enumerate all would be beyond the scope or intention of this publication.

WILLIAM THOMAS NICHOLSON, the founder and for thirty years president and general manager of the Nicholson File Company, was born in Pawtucket, R. I., March 22, 1834. His parents were William and Eliza (Forrestell) Nicholson. His father was a native of Marblehead, Mass., and at an early age went to Pawtucket, where he learned and followed the trade of a machinist. The school education of William T. Nicholson included that of the common schools of Whitinsville, and one year at the Uxbridge Academy. At the age of fourteen he entered the machine shop of Paul Whitin & Sons, where he remained three years, to learn the trade of a machinist. Seeking for a broader experience he, for the next two and a-half years, worked in several machine shops in Providence, where, in 1852, he entered the employ of Joseph R. Brown. For the following six years he remained with Mr. Brown, rising by his industry and general ability, in 1856, to the position of general manager of the shops. His labors at this time continued into the evenings for the study of general mechanics and mechanical drawing, through which means he qualified himself to make all drawings then required by the firm.

In the spring of 1858 he formed a co-partnership with Isaac Brownell (Nicholson & Brownell) to carry on the general machine business, but in 1860 he bought Mr. Brownell's interest, and increased his facilities by removing to a more commodious shop and adding more machines. Shortly after the outbreak of the Civil War there came a demand for war material, and he soon had abundant opportunity to supply special machinery for the production of small arms. He purchased the tools, patterns and stock of Foster, Luther & Company, and much increased his plant. He employed, in all, sixty men. In addition, he joined with Henry F. Monroe (Nicholson & Company) in the manufacture of small parts for one hundred and fifty thousand Springfield rifles, using special machinery of his own designing. This partnership ended in 1864, and Mr. Nicholson directed his whole attention to a long

contemplated invention—that of manufacturing files by machinery. In this he was eminently successful, and also in organizing a company in the same year with a capital of \$300,000, under the name of the Nicholson File Company, of which he was chosen president. The magnitude of this undertaking is expressed in the fact that it was necessary not only to perfect machinery for cutting, but also for forging and grinding over four hundred different styles of files,—thus to ensure a success and be quite independent in the new industry.

In the more than a quarter of a century of Mr. Nicholson's conduct of this business, by numerous experiments, by the inspection of the various modes of file production in this and in foreign countries, and by the construction of machinery for which over forty patents were granted, the manufactures of his company became widely noted for their superiority. The producing capacity of these works have grown from the small beginning of less than three hundred dozen per day (1867) to that of three thousand dozen, and this company is now one of the most prosperous manufacturing corporations in the country—a success attributable to Mr. Nicholson's efficient management.

In public life Mr. Nicholson was for several years a member of the city government. As one of the trustees of the Providence Public Library from March, 1877, until his death, he had had also the honor of being one of the original committee to draft the act of incorporation in 1871. He was a director in the Rhode Island National Bank and the Narragansett Electric Lighting Company. He was a member of the Providence Franklin Society, also of the Mechanics' Association, and took an active interest in them, and was a member of the American Society of Mechanical Engineers.

Mr. Nicholson married, October 14, 1857, Elizabeth Dexter Gardner, daughter of Samuel and Alice (Mowry) Gardner, of Limerock, by whom he had five children—three sons and two daughters. He died October 17, 1893, after establishing the largest and most complete file-manufacturing plant in the world.

THE NICHOLSON FILE CO. was incorporated in 1864 with a capital of \$300,000. Its organization was due to William T. Nicholson, who became president and general manager. A large plant was erected, and by 1867 the product was three hundred dozen per day of machine-made files; the machinery used being the invention of Mr. Nicholson. The many previous attempts at making files by machinery had not been successful, and in order that such a result should not follow in this case it was necessary not only to equal the hand-cut files, but to excel them. To accomplish this a vast amount of invention was required, together with the discernment to discriminate as to what was of practical value, with also an equal business ability.

In 1890 the Nicholson Company acquired by purchase the business and plant of the American File Company, of Pawtucket, which has a capacity of about twelve hundred dozen per day.

Before Mr. Nicholson's death, in 1893, a factory adjoining their Providence works was built for the production of "X. F.," or jewelers' and fine workers' files.

On the death of William T. Nicholson, in 1893, he was succeeded as president and general manager by his son, Samuel M. Nicholson, who had for years occupied successive positions in the company's employ. With the inherited energy and perseverance of the founder, the son has largely extended the business, new buildings have been added, also new machines and new processes, resulting in a great extension of the business.

In 1895 the Western File Company's works in Beaver Falls, Pa., next to the



Joseph R Brown

Nicholson Company the largest in existence, came under the control of the Providence company.

Over sixty thousand files are made and finished daily in their various factories, representing about sixty-five per cent. of the entire production of files in this country. Three thousand varieties are manufactured, thus satisfying every conceivable demand and use for files. In 1895, a normal year for manufactures, over thirty-five per cent. more business was done than in any previous year of the history of this company.

Their products are now sold in every quarter of the world, invading markets where formerly European makers have exclusively sold. In Great Britain, the strongest competitor of America in file making, many large houses, both dealers and consumers, continually specify the files of the Nicholson Company in preference to the leading English makes.

Owning and operating its four factories, the Nicholson File Company is the largest file and rasp-producing company in the world.

BROWN & SHARPE MANUFACTURING CO., Providence, R. I.—In 1833 David Brown formed a co-partnership with his son, Joseph R. Brown, and founded the business now known as the Brown & Sharpe Manufacturing Company.

David Brown was born in 1781 in Attleboro, then a part of Rhode Island. At the age of fourteen, with but a slight education, he left home to become a tavern-boy at Seekonk, Mass., where he remained a year or two, and then entered the store of Nehemiah Dodge, in Providence, to learn the trade of a jeweller, serving a full term of apprenticeship. But his natural taste for mechanics led him to learn the trade of watch and clock-making, under Mr. Payton Dana, with whom he remained until about 1802, when he was employed by Obed Robinson to organize and put in operation an establishment for the manufacture of plated jewelry in Attleboro. Two years later he went to Warren, R. I., and established himself as a manufacturer and dealer in clocks, watches, jewelry, and especially silver-ware.

In 1809 he married Miss Patience Rogers. Soon there came a depression in his business, with the necessity of mortgaging his home. He had invented a grinding-machine, propelled by foot; this he now put on wheels, packed his silver-ware upon it, and went through the valley of the Connecticut, grinding razors and other fine cutlery, and selling his goods. This venture was so successful that he continued it for two or three years and extended his trips further south, thus clearing himself from debt, and laying by something. In 1828 he sold his property in Warren, and removed to Pawtucket, where he continued the same line of business.

In 1833 he formed a co-partnership with his son, Joseph R. Brown, as before stated, and they soon founded, in Providence, the enterprise now known as the Brown & Sharpe Manufacturing Company. This, when first started, was mainly devoted to the manufacture and repairing of watches and clocks, and surveying and mathematical instruments. David Brown retired in 1841, when he removed to Bureau county, Illinois, to establish a younger son on a large tract of land which he had there purchased. In 1856, however, he returned to Pawtucket, where he built a residence for his daughter. In the rear of this house he fitted up a shop, in which he worked until his death, in 1868, at the advanced age of eighty-seven years and five months. In the course of his long and laborious career he made several useful inventions, among which were improvements on the mechanism of clocks, and a machine for winding twine-balls.

Joseph R. Brown was born in Warren, R. I., on the 26th of January, 1810. He went to the district school, and out of school hours and during his vacations he

assisted his father in the labors of the shop. With a natural bent for being a machinist, he went, in the spring of 1827, to learn this trade of Walcott & Harris, at Valley Falls. At first he was put upon coarse work; but his experience in his father's shop soon enabled him to leave this for finer work, and for three months he was employed on the parts of cotton machinery that required accuracy and skill. Failing, however, to receive the wages he claimed, he entered the service of William Field, at Central Falls, where he turned throstle spindles, being paid eighty-seven and a half cents a day. In the following spring he returned home to assist his father, who had removed to Pawtucket, in constructing a tower clock for a church in that town, and others for Taunton and New Bedford. These labors kept him employed until he attained his majority, in 1831.

He now set up a small shop of his own, for the manufacture of small tools for machinists and the building of lathes. Two years later he again joined his father, and they resumed business together, at No. 60 South Main street, Providence, as has been stated. In the winter of 1837 their shop and its contents were burned, and they lost heavily, the amount of the insurance being only \$2,000, and that was all that was left to them. While awaiting the re-erection of their building, they rented a small shop for temporary use. When the new shop was completed, however, they had no forge with which to work; and in 1839 they rented a portion of the premises at No. 69 South Main street, where the business was continued until 1848, Joseph R. Brown carrying it on alone after 1841. In order to secure more room and the benefit of steam power, he removed to No. 115, on the same street, and here his industry prospered. From the beginning up to 1853, Mr. Brown had carried on, with the rest of his business, a general jobbing department, which he then closed up, and after that date confined himself to his manufacturing interests.

Lucian Sharpe, who had been for five years his apprentice, was now offered, at a nominal figure, a half interest in the business, which he accepted, and the firm of J. R. Brown & Sharpe was organized. The new firm occupied a ground floor, sixty by thirty feet, and employed in their business about fourteen workmen. From time to time they gained possession of other portions of the building, and in 1858 they entered into a contract with the Willcox & Gibbs Sewing Machine Company to manufacture all their machines. This they have done ever since, the machines amounting, in the aggregate, to over five hundred thousand of their standard automatic sewing machines, and large numbers of straw, hosiery and other special machines. Four years later they not only occupied the whole three floors of the building and the building adjoining, but had built an addition in the rear, and by 1865 the number of their workmen was nearly three hundred. They obtained a charter, under the corporate name of the Brown & Sharpe Manufacturing Company, in 1868. The building they then occupied was of wood, and they were crowded in their operations for want of room.

They accordingly purchased in 1870 a piece of ground, which, with additions from time to time, now comprises eleven and three-quarter acres, and commenced the erection of the first of the present factory buildings. These consist of the No. 1 building, or machine shop, completed in 1872 and extended in 1884; the foundry, built in 1880 and extended in 1881; the No. 2 building, completed in 1889; the No. 3 building, the first part of which was built in 1891, and the second (used for storage of patterns) in 1893; the extension to the No. 1 building, completed in 1894; and the hardening shop, finished in 1896. The No. 2 building and the last extension to the No. 1 building are four stories, the other machine shops are three stories. There are also blacksmith shop, boiler and engine rooms.

In many respects these buildings are considered the best in America for this line of work. They are exceptionally neat and substantial structures, modern in every particular, and methodically arranged and planned especially to assist in manufacturing conveniently and economically. They are built chiefly of brick and iron, and are practically fire-proof.

The foundry, exclusive of adjoining pattern shop, cleaning room, cupola house, bath rooms, etc., is two hundred and sixty-five feet long, sixty-seven feet wide, brick to the window sills, and a large portion of the wall space is occupied by windows. The interior of the roof and the walls are painted white. The windows are curtained and the building heated by steam.

The total floor space of all the buildings is six and one-half acres.

The methods employed in manufacturing are those which have come to be termed "American methods," and include to a marked degree the use of special fixtures and limit gauges and the manufacture of a great many parts at once. The tools and appliances throughout the works are the best attainable, and many of them were developed by the necessity of manufacturing sewing machines accurately and economically, and were designed at first for use simply in this establishment, but they were so often admired and ordered by those who saw them, that it was found best to catalogue them and carry them in stock. After a time they were modified in details to make them applicable to more general use, and subsequently larger and heavier machines were made, so that the tools of the company are now used in steam engine and locomotive shops, for example, as well as in establishments devoted to the manufacture of sewing machines, bicycles, fire-arms, typewriters, electrical appliances, etc.

Many of the machines and appliances were the direct product of Mr. Brown's inventive skill, as, for example, the Universal Milling Machine, patented by him in 1865, the cutters that can be sharpened without change of form, patented in 1864, the revolving head-screw machine patented 1865, Universal grinding machines, patented 1878, screw slotting machines, tapping machines, gear-cutting attachment for Universal Milling Machine, friction clutch pulleys, patented 1864, and a large number of gauges and exact measuring instruments, which have established the reputation of the company and materially modified and improved machine shop practice throughout the world.

An earlier invention, made in 1852, was the linear dividing engine for graduated divisions in scales of measurements—the first automatic machine of the kind put in use on this side of the Atlantic.

The Vernier Caliper, also perfected by Mr. Brown in 1853, was the first practical tool for exact measurements which could be sold in any country at a price within the reach of the ordinary machinist, and its importance in the attainment of fine work can hardly be over-estimated. Since that time the company has largely manufactured graduated steel rules for exact measurements according to the United States, English and French standards.

In 1866 Samuel Darling, of Bangor, Me., acquired an interest in this branch of the business, and this department was conducted in the same buildings, but under the name of Darling, Brown & Sharpe, until Jan. 1, 1897, when the use of the firm-name was discontinued, Mr. Darling having died Oct. 12, 1896. Mr. Darling was an unusually fine mechanic, and made a number of important inventions in connection with rules and scales, taking out no less than fifty patents.

The list of Mr. Brown's inventions suggests the character of his thoughts throughout his life, but perhaps does not indicate his reasons for his work. He

worked chiefly because it was his greatest pleasure. He possessed a genuine love for all mechanical and mathematical problems, and he was always as willing to take up some difficulty which was disturbing his associates as he was to work out a problem pertaining more entirely to himself. This earnestness in helping other people and this love of mechanics were, perhaps, his chief attributes, and these qualities, with his unusual skill and his determination to sell only the best work, were the very great influences which he contributed to the business. He had no ambition to make a large amount of money, or to establish a very large industry, but his inventions were of such a character that when made known they were at once appreciated and were of inestimable value to the business. How important these inventions were and how permanent is their usefulness we often do not fully appreciate. They are so much a matter of every-day use we frequently take them as a matter of course, but the principles of many of them were entirely novel, and they will be as permanent as they are advantageous; for instance, the principle embodied in the cutters that can be sharpened without changing their form has wonderfully increased the efficiency of milling and gear-cutting machines, and probably will be used as long as these machines are used.

Mr. Brown died at the Isles of Shoals, N. H., July 3, 1876, of rupture of the left ventricle of the heart, leaving a widow and one daughter, the wife of Edward I. Nickerson, of Providence, R. I.

Mr. Sharpe was born March 20, 1830, in Providence, R. I., and continued to live there until 1836, when for a few months he lived in Boston, Mass. From the spring of 1837 until the spring of 1840 he lived with his uncle, Pitt Sharpe, in Pomfret, Conn., on the farm where his father, Wilkes Sharpe, was born, and which has been in the family since his father's great-grandfather came there from Brookline, Mass., in 1721. In the spring of 1840 his father purchased a farm in Hartwick, Otsego Co., N. Y., and on this the family remained for two years. The farm was then sold, and his father returned to Providence, the mother and boy remaining for two years longer in Hartwick at the home of Mrs. Sharpe's brother, Ebenezer Chaffee, and during this time the son attended Hartwick Seminary. In 1844 the mother and son returned to Providence, and the education of the boy was continued at the Elm street Grammar School, and after that for two years at the Providence High School.

From 1820 to 1865, except during the two years when he owned the farm in Hartwick, Mr. Sharpe's father was connected with the stable business, chiefly in Providence, R. I., either as owner or as foreman. In his business he came in contact with a great many people, and was noted for his promptness, industry and integrity, for his fondness for reading, his retentive memory and unusual bodily vigor. These qualities his son inherited, and to them he added commercial talent and administrative ability of high order. He also early developed the faculty of appreciating what was useful in a mechanical device, and it was soon noted that he had excellent taste for the best forms for machines or tools. His characteristics were rendered unusually efficient by concentration upon a definite purpose—the advancement and success of the business. All matters of personal ambition and comfort were subordinated to this, his desire for prominence being limited to advancement in and through the growth of the business. In the conduct of the business he is plain-spoken and positive, and extremely orderly and methodical, and, as far as possible, responsibility has been placed upon those associated with him, his principle being to insist upon results rather than upon the exact methods used by subordinates, leaving to each, in a large measure, the opportunity to exercise his judgment, with the understanding that, if successful, advancement was assured; and in this way, while exercising to the utmost



Lucian Sharpe

a very great capacity for work, Mr. Sharpe has been able, without detriment, to leave the business to his subordinates when occasion required a number of months of absence.

He has taken no active part in the management of other manufacturing or commercial enterprises, except as director, since 1874, of the Willcox & Gibbs Sewing Machine Company. He has, however, filled a number of important positions. He has been trustee of the Providence Institutions of Savings since 1881, was director in the National Bank of North America from 1879 to 1891, and has been director in the Rhode Island Hospital Trust Company since 1897, director in the Providence Gas Company since 1883, and president of the Providence Journal Company since 1886. In politics he has never taken an active part.

Although he is not a man who would be said to be given to sentimentality, yet no case of suffering or misfortune among his employees has been brought to his notice without receiving his assistance, and he has always taken a deep interest in the general welfare of those employed by the company, insisting that employees should have all the comforts consistent with their occupation, believing that these comforts are not only due them as men, but also incidentally enhance their efficiency as workmen. There is a shop library of two thousand volumes, and the apprentices have an association with meetings, in working hours, for lectures and mutual improvement.

In his early years Mr. Sharpe learned to read and speak French readily, and his general reading and attainments have been of such a nature that the degree of A.M. was fittingly bestowed upon him by Brown University in 1892.

From the outset Mr. Sharpe shared Mr. Brown's determination that only the best quality of work should be sold, and each had for the other a warm regard and sincere respect. They were congenial in many ways, and each helped and influenced the other, and their partnership, with their mutual confidence, ensured satisfactory returns.

Mr. Brown's inventions indicate his talent, and were the basis of the business, but its growth has been due chiefly to Mr. Sharpe's energy and ability. The development of the enterprise, from year to year, is suggested by the figures of the floor space, number of men employed and pages of catalogue :

Floor Space.	Men Employed.	Pages in Catalogue.
1853 1,800 sq. ft.	1857 20	1867 38
1873 66,600 "	1872 250	1877 85
1880 91,700 "	1880 350	1887 155
1888 115,200 "	1884 450	1890 205
1890 208,400 "	1886 600	1893 306
1896 278,764 "	1888 800	1896 366
	1893 1,000	
	1896 1,300	

In 1867, having determined that it was a poor business which could not for a time run itself, Mr. Brown and Mr. Sharpe together visited the first International Exposition in Paris, where the firm had an exhibit, and they were so impressed with the importance of such expositions that the company has exhibited in all the large ones since that date, and in all of them they have obtained leading awards. The machines and tools exhibited have never been specially prepared for exhibition, and have always been the same in finish and design as those regularly manufactured, and their originality, their fitness for the purpose for which they were designed, the

excellence of their workmanship, the convenience with which they could be handled, and the progress that they have shown in design over those in earlier expositions, have invariably been commended. At present more than sixty different machine-tools and three hundred varieties of small tools are catalogued and manufactured, and many of these are sold in all parts of the world.

In August, 1838, the EAGLE SCREW COMPANY was organized, forming the origin of the present American Screw Company.

The magnitude of the wood-screw industry, with the added fact that it has been very largely forwarded by the business ability of citizens of Providence, induces a few words as to the earliest known origin of wood-screw making. Down to 1817, all screw blanks were hand-forged; then Colbert, a German clock-maker, cut wire into lengths, and held each piece in a pair of dies having a countersunk face; the protruding end was upset with a hammer. According to "Tominson's Cyclopædia," 1852, the blanks for [wood] screws were formerly forged by nail-makers; the blanks were later made from round rolled iron cut to lengths, the heads being formed by pinching them while red hot between a pair of dies, and the threads were cut by means of a file. Hand-made, gimlet-pointed wood screws undoubtedly date back to as early a period as 1755, having been taken from a London-made piano of that date. And in a work entitled, "*Recueil des Planches sur Les Sciences les Art Liberaux et les Arts Mechaniques*," Paris, 1771 (plate 7, figure 7, planche 9), is an illustration of a screw with bevelled-nicked head and tapering shank, threaded to the point. The origin of the machine-made, gimlet-pointed screw was 1835-7, and made by the Poughkeepsie Screw Company, Poughkeepsie, N. Y.

In Rhode Island, the history of wood-screw making begins in 1810, when Barnard Eddy made an iron screw equal to the English screw; he completed machinery and manufactured a good and perfect article at the Elmville Mills, Cranston, but the business was not a financial success.

Jeremiah Eddy and William Pabodie, on October 29, 1814, advertised that they had established a screw factory at North Providence (in what was recently the Providence Dye Wood Works).

Mr. Clement O. Read made wood screws in the wing of the mill at Geneva. This machinery was soon removed to Worcester, then to Northville (Washburn & Goddard). The business was discontinued in 1836-7. Mr. Read returned to Providence in 1837, and he, with others, organized a company which was chartered in January, 1838, with a capital of \$20,000, as the Providence Screw Company, and among the first corporators were John Gorham and William G. Angell. The managers were Clement O. Read, John Gorham, Eaton Maxcy, Philip B. Stiness and Allen Holbrook. The factory was on the east side of the Moshassuck river, a short distance above Randall street bridge. Product was twenty gross per day. In 1840 this company, after a disastrous existence, sold out to the Eagle Screw Company.

August, 1838, the Eagle Screw Company was organized, and chartered that autumn. The stockholders were John Gorham, William G. Angell and sixteen others. Capital stock was \$30,000. Their location was Stevens street, on the east side of the Moshassuck river. This company was managed by Mr. Angell as agent, under the advice of a finance committee of two—George Hail and Asa Pierce. After a fair amount of prosperity and the erection of the number two mill, about the year 1852, the company found itself without machinery for the manufacture of the gimlet-pointed screws on their re-introduction by the New England Screw Company in 1849, but the Eagle Screw Company availed themselves, by purchase, of the patent of Thomas J. Sloan (dated August 20, 1846), on a particular form of gimlet-point.

The New England Screw Company was originally chartered in 1840 with a capital of \$20,000. The incorporators were Cullen Whipple and nine others. In 1841 a new charter was obtained with an authorized capital of \$50,000. Alexander Hodges was appointed treasurer and agent, and they occupied a large building near the corner of Eddy and Friendship streets. The mill was built in 1852; since much enlarged. Mr. Henry L. Kendall (1846) succeeded Mr. Hodges, but retired on the consolidation of the Eagle with the New England Company in 1860, under the name of the American Screw Company, capital, \$1,000,000. This year the new company acquired the Utica Screw Company, Utica, N. Y., and the Bay State Screw Company of Taunton, Mass. William G. Angell was chosen president, Albert G. Angell, agent; Edwin G. Angell, treasurer, and William H. Henderson, secretary. The Bay State mill, on the north side of Stevens street, was completed in 1873.

William G. Angell, who as president and general manager of the company did more than any other to establish its great financial success, died in May, 1870, and was succeeded by his son, Edwin G. Angell, who is now (1897) president and general manager.

In 1876, the capital stock of the company was increased to \$3,250,000.

From about 1838 to 1888 the methods of making wood screws by the Eagle, New England and others, were the automatic making of headed blanks from a coil of wire by a heading machine; then second, the automatic taking of headed blanks from a hopper and nicking and shaving the heads; third, the automatic taking of the nicked and shaved blanks and threading the shanks.

In the evolution of the wood-screw manufacture it was perhaps inevitable that advantage should be taken of the homogeneous character of Bessemer steel from which to form wood screws by causing the metal to "flow" under pressure. The following is a description of the American Screw Company's cold-forging process:

The heading machine cuts, heads, slots, and points pieces of wire from a coil, for use as blanks for wood screws, one at each revolution, and according to size thirty to seventy-five per minute. The blanks are removed to the threading machine, in which all the metal forced, by its dies, from the body of the blank—increasing the diameter of the thread—is caused to flow into the form of the regular screw thread with gimlet-point. The product in screws or bolts is better and cheaper than if made in the old manner by the cutting process.

This company also have manufactories in Leeds, England, and Hamilton, Ontario. While the profits of the American Screw Company have been of material aid in establishing many other industries, yet the risks attendant upon following the wood-screw business have always been great, for out of more than one hundred enterprises started in this country only about one dozen remain. The present officers of the company are: President, Edwin G. Angell; vice-president, Clark Thurston; agent, James A. Nealey; treasurer, George W. Thurston; secretary, Olney Arnold, II.; assistant treasurer, William A. Cranston.

THE PROVIDENCE FORGE AND NUT CO. was organized in 1853 by Rufus Waterman, Samuel A. Nightingale, George H. Corliss and Edwin J. Nightingale. Their manufactures were punched nuts, washers, bolts and ship chandlery or iron-work. In 1856 this company was consolidated with the Providence Tool Company, which latter originated in 1847; the incorporators were William Field, Rufus Waterman, Freeman Foster and Henry T. Cornett, the business of both companies being substantially the same. During the Civil War much capital was invested in machinery for the manufacture of rifles. Later a large contract for Peabody-Martini rifles was executed for the Turkish government. Disaster overtook the company

in 1875 and 1883. At this last period two separate companies were formed: one as the Rhode Island Tool Company took the up-town works, formerly the Providence Forge and Nut Company's works (enlarged), and the Household Sewing Machine Company, the lower works, formerly those of the Providence Tool Company (enlarged.) The business of the Rhode Island Tool Company has been successfully conducted in the manufacture of the old line of goods of bolts, nuts, washers, together with the making of finished work in bolts, studs, cap-screws, etc. Average number of men employed about 300.

GENERAL FIRE EXTINGUISHER CO.—In 1850 William Barbour and Thomas Angell established the business, which later became known as the Providence Steam and Gas Pipe Company; Joseph C. Hartshorn joined the firm the same year. Various changes occurred; Mr. John H. Clark, who had been from 1857 agent of the Corliss Steam Engine Company, joined the company in 1864-5. In 1865 it was incorporated with Mr. Clark as president and Mr. Hartshorn as treasurer, they being then the sole owners. In February, 1869, Mr. Frederick Grinnell purchased Mr. Clark's interest. Their general business was all work appertaining to the use of steam in manufactories, fire apparatus for the same, and the building of gas-works for lighting such establishments. A part of their business was to put into mills, warehouses and manufactories what was known as sprinkler-pipes, which consisted of perforated pipes placed near the ceilings of rooms and connected with a supply-pipe, through which water could be introduced and forced out through the perforations in small jets, when, after the discovery of a fire, valves were opened by hand. But it soon became evident to Mr. Grinnell, from easily apparent reasons, that what was really needed was an automatic sprinkler, and one which should operate only at the instant and the place of the origin of the fire.

At the beginning of this century, in England, Sir William Congreve gave much attention to the automatic sprinkling of fires, but it was not until 1874 that actual practical use was made of automatic fire-extinguishers. In that year Mr. Henry S. Parmelee produced what is known as the water-joint sprinkler. In its best form it consisted of a reaction turbine, covered by a cap, held in place by solder, which melted at the low heat of 155° to 160° F. These were attached to a system of water-pipes, and placed about ten feet apart. This invention was adopted and many improvements were made on it by Mr. Grinnell; over one hundred and fifty thousand were put into use. The Parmelee extinguisher was slow in its action as, necessarily, a body of water had to be heated before the solder would melt.

In May, 1882, Mr. Grinnell introduced his sensitive sprinkler, which, by the very comprehensive features that it embodied, took its place as completely solving all requirements. This invention seems destined to rank with the great inventions of the century, when considered with reference to the very complete solution which it gives to protection from fire.

November 18, 1892, the Providence Steam and Gas Pipe Company was merged, with other companies, into the General Fire Extinguisher Company, having its executive office in Providence. Frederick Grinnell, president; F. H. Maynard, general business manager. Other offices in New York, Boston, Philadelphia, Buffalo, Columbus, Ga.; Chicago, St. Louis, Cleveland, Cincinnati, Warren, Ohio.

In 1875 Benjamin H. and Nicholas B. Hadley commenced in Providence the machine business, and were principally engaged in the building of special machinery for the American Screw Company until about 1882. Then they commenced the making of grinding and polishing machinery, employing about fifteen workmen. At this time George A. Hadley, son of B. H. Hadley, became a partner. The firm

was incorporated in 1894, under the name of the Diamond Machine Company; George A. Hadley, treasurer and general manager. Business is that of making grinding and polishing machines, for general machine-shop use, and bicycle manufactories. Shops on Valley street. They do a large export business, principally to European countries. Workmen employed, one hundred to one hundred and twenty-five. Sales in 1896, about \$135,000.

THE AMERICAN ELECTRICAL WORKS.—In 1870 Mr. Eugene F. Phillips commenced the manufacture of electric wires on Chestnut street, Providence, using only thirty pounds of copper per day. Now the business has increased to the extent of using 75,000 pounds of copper bar per day. Having outgrown three manufactories, the works are now located in Phillipsdale, and have about three acres of floor space. The American Electrical Works have a capital of \$750,000, and employ about seven hundred workmen. They have an office in New York city, at 10 Cortlandt street; Chicago, at 241 Madison street; branch in Montreal, Eugene F. Phillips Electrical Works, Limited. Officers: Eugene F. Phillips, president; F. N. Phillips, treasurer; W. H. Sawyer, secretary; C. R. Remington, Jr., assistant-secretary. Business address, Providence, R. I. Business embraces all forms of electric wires for telephone, trolley, electric lights, etc.

WALTER COLEMAN & SONS, Manufacturers of Tackle Blocks, etc.—In 1778 John Coleman commenced the business of tackle-block making (the first manufactory of the kind in the country), in Providence. He was succeeded by his son Walter Coleman, who, after, with his two sons, Stephen G. and William, in 1821, founded the present firm of Walter Coleman & Sons. On the death of Walter, then Stephen and William continued the business. They were succeeded by Stephen R., son of Stephen G., the latter continuing until January 1, 1891, when he was succeeded by his brother, Edward J. F. Coleman. The two factories are at Nos. 300-308 South Water street. Business is the making, by special machinery, of wood and steel tackle blocks of every description, combined with the keeping of a large stock of nautical instruments.

CHARLES W. JENCKS & BRO., Paper Box Manufacturers.—In September, 1852, the business of making paper boxes by the use of machinery was commenced in Providence by Charles W. Jencks. The business is now conducted under the firm-name of Charles W. Jencks & Bro.—C. W. & J. J. Jencks. Average number of hands employed is one hundred and twenty.

RHODE ISLAND PERKINS HORSE-SHOE CO., Providence, R. I.—About the year 1857 Charles H. Perkins invented his first horseshoe-machine, and the Union Horseshoe Company, of Providence, embodied his ideas in their productions during the Civil War. Soon after he invented an entirely new process of manufacturing, and in 1867 the Rhode Island Horse-shoe Company was incorporated to manufacture horseshoes under his patents. The capital of A. and W. Sprague was behind this company, but on their failure in 1873 Mr. F. W. Carpenter became president, Mr. C. H. Perkins retained the mechanical management, with Mr. Richard W. Constock as secretary. Improvements were continually made in the quality of the goods and in the process of manufacture until at the Centennial Exposition in Philadelphia, 1876, their exhibition excelled all previously shown in this line. The company had removed to Valley Falls, where enlargements were frequently made. In 1887 the plant was totally destroyed by fire, but at once rebuilt. In 1891 the Rhode Island Horseshoe Company sold its property to the Rhode Island Perkins Horse-shoe Company, chartered under the laws of the state of New Jersey.

The buildings comprise a rolling-mill for rolling iron bars, from scrap, for iron

shoes and for rolling steel billets in bars for steel shoes; horse-shoe shop for bending, and punching shop. Also a machine shop for building and repairing all their machinery, and a cooper shop where they make their own kegs and packing boxes.

Product includes all forms of heavy and light horse-shoes, also snow-shoes, bevelled to prevent balling; burro or jack shoes to the smallest sizes; toe and side weight shoes; the Goodenough shoe, extensively used by horse railroads; the Perkins chisel-pointed, prong-toe calk.

Works are located on the Worcester Branch of the N. Y., N. H. and H. Railroad at Valley Falls. General office, Providence, R. I. Officers: F. W. Carpenter, president; C. H. Perkins, general manager; R. W. Comstock, secretary; C. R. Stark, treasurer.

BEAMAN & SMITH.—In 1886 Elmer A. Beaman and George H. Smith commenced the manufacture of machine tools in Providence, under the firm-name of Beaman & Smith, corner of Harrison and Westfield streets. Each had held positions of responsibility with well-known makers of machine tools. Their principal manufactures are accurately made machine tools for milling, also, boring and drilling machines, with one or more spindles placed vertically, or horizontally, as best to meet the requirements of work to be done. A part of their business is to undertake the designing and making of special tools to reduce cost of production.

With a continued growth of business they now occupy a floor space of 20,000 square feet, well equipped with modern tools, and give employment to nearly one hundred employees.

FULLER IRON WORKS, Providence, R. I.—In 1840 Frederick Fuller established his iron foundry business in Providence. Incorporated in 1894—Fuller Iron Works—Frederic Fuller, president; R. Clinton Fuller, secretary and treasurer. Office and Works, 40 Tockwotton, corner South Main street. Business: iron foundry and machine shop. Manufacture small steam engines; but particularly hoisting for a great variety of uses—coal docks, quarries, ships' use, etc. Also ice elevators, machinery, castings of all kinds, water steam, and gas pipe, and every variety of special castings for same.

AMERICAN TUBING AND WEBBING COMPANY, 13 Mathewson and 159 Aborn street, Providence. In 1883 the business of the American Tubing and Webbing Company was established—incorporated under Rhode Island charter in 1890. Business: Weaving elastic webs, oil-stove wicks, and braiding elastic braids. Also manufacture flexible tubing for gas-stoves and drop-lights. Employ about eighty men. Officers: James M. Ripley, president; Lorin M. Cook, treasurer; Alfred Caldwell, general manager. Capital, \$30,000.

AMERICAN MULTIPLE FABRIC COMPANY, Olneyville, R. I.—Mr. Seth W. Baker, some years before 1873, commenced the manufacture of multiple woven goods by patented special machinery. In 1873 the company was called the S. W. Baker Manufacturing Company. In 1884 the name was changed to the American Multiple Fabric Company. They produce a fabric of great strength and durability, with a texture both firm and pliable, woven to any desired thickness. One branch is the making of textile hose for fire companies and other hydraulic purposes, woven seamless, and with a continuous rubber lining. Baker's patent evaporating horse blankets are also made. Also endless aprons for the use of worsted yarn manufacturers, and sundry supplies for paper-makers and calico print works; for the production of all these goods they have a long-established reputation. Mr. William A. Wilkinson is treasurer and general manager.

ALMY WATER TUBE BOILER COMPANY, Providence, R. I.—September 1, 1889,

the Almy Water Tube Boiler Company commenced to manufacture steam boilers under the patents of Darwin Almy, organized under the Rhode Island Charter, May, 1890. Their business is chiefly the making, for marine use, of the Almy water tube boiler, which for the same power weighs only one-third that of the fire tube boiler. In July, 1895, they moved from their first location, corner of Eddy and Clifford streets to their newly-erected brick building, on Allen's Avenue, 130 feet by 60 feet. Officers, Darwin Almy, president and treasurer; D. H. Spence, vice-president and secretary; F. D. Almy, superintendent; they being also the original corporators.

MESSRS. WALTER H. DUFFEE & CO. (W. H. Durfee), 151 Pond street, Providence.—Manufacturers of English Hall Clocks, and Harrington's Patent Tubular Bells. The origin of this business dates back to 1874, but 1881, is the date of the first sale of a clock of their own manufacture. The first tubular chime clock was sold March, 1887, for \$500; at this date, March, 1897, over one thousand have been sold at that price and over. They manufacture breakfast calls, also eight bells for stage purposes as a perfect imitation of distant cathedral chimes, all of the tubular form. Four movements are used in their hall clocks. (1) The tubular chimes movement having nine tubular bells chiming at the quarters; (2) the Westminster chime; (3) chime in eight bells; (4) the Whittington or Bow Bell chime.

R. D. MASON & COMPANY, Pawtucket, R. I.—Bleachers and dyers. This business was commenced in 1805, by Mr. Barney Merry, who began the manufacture of ginghams in connection with the business of dyeing. After awhile he gave up the first and gave his whole attention to bleaching and dyeing. Mr. Merry died in 1847, when two of his sons succeeded to the business. In 1866, Robert D. Mason was admitted to the firm, and after the death of Samuel Merry, Mr. Mason became the head of the firm then known as R. D. Mason & Company. For some years the Dexter Brothers were partners of Mr. Mason, but they withdrew after a time, and in March, 1889, Frederick R. Mason, son of Robert D. Mason, was admitted to partnership. They have much increased their business, and now use about two hundred horse-power. The establishment has a capacity of ten tons per day, and employ about one hundred hands. Threads, knitting cotton yarns, braids and tapes are the principal goods which are finished at these works, and a specialty is made of aniline and fast-blacks. In 1892, the concern was incorporated with a capital of \$100,000. Officers: Robert Mason, president, and Frederick R. Mason, treasurer.

BLODGETT & ORSWELL CO., 28 Bayley street, Pawtucket, manufacturers of fine glazed yarns. This business was started in 1881 by E. G. Blodgett; later the firm became Blodgett & Orswell until 1887. The company produce spool cotton, three and six cord, in all colors and lengths, for manufacturing purposes, and keep on hand always an extensive assortment of glazed yarns, in all numbers and colors, both domestic and foreign, for manufacturers of ribbons and bindings. This company was incorporated in 1887 with a capital of \$100,000. Mr. Blodgett died in 1894. Officers: E. W. Orswell, president and treasurer; W. W. Orswell, secretary. This company are proprietors of the Pawtucket Dyeing and Bleaching Company, bleachers and dyers. Cotton yarns and stockinet are bleached and dyed any desired colors. Officers: Mr. William Rapp, president; E. N. Orswell, treasurer.

HARRISON YARN AND DYEING CO., Pawtucket. This business was founded in 1862 by Richard Harrison and Thomas Hayley under the name of Hayley & Harrison. From the very small beginning of employing two men, the business has arisen to large proportions. In 1893 it was incorporated under the laws of Rhode Island with a capital of \$75,000. Mr. Hayley retired in 1867. The present works were built by Mr. Harrison, and have been several times enlarged, the last time in 1895, now em-

bracing three three-story buildings having every facility for the manufacture and dyeing of yarns. The product includes cotton yarns in all numbers, colors, fast or fugitive, furnished on spools, sections or weaving-beams; also novelty yarns of all kinds, and the crimping of fancy floss is a specialty. Officers: Richard Harrison, treasurer; Charles E. Harrison, secretary.

GRANGER FOUNDRY AND MACHINE CO., Providence, R. I., 355 to 383 Harris avenue. Manufacturers of bleaching, dyeing, drying and finishing machinery; husk, paper and cotton rolls; calenders, mangles, drying machines, tentering machines, hydraulic presses, etc.; short and long chain dyeing, sizing and drying machines; combination of husk and cotton rolls. Also finishing machinery for fine paper; cotton, paper and chilled iron rolls; breaking calenders, sheet super-calenders, web super-calenders, friction calenders, plaiting calenders, embossing calenders; hydraulic presses, and pumps. This business was established in 1842. In 1879 the present name was taken under an act of incorporation, but was originally incorporated as the Cove Machine Company. In 1895 they removed to their new plant, which is very exceptionally complete in all its details. The buildings have an iron framework supporting the roof, crane rails and gallery floor; the whole resting on a heavy granite foundation. The sides of the building are composed principally of windows, glazed with heavy ribbed glass, with the intermediate portions of the building made of one and one-half inch tongued and grooved spruce, covered with building-paper, and slated on the outside. The plant is complete with all modern facilities, including an electric traveling-crane, and is thoroughly protected by Grinnell sprinklers. Officers: W. S. Granger, president; H. A. Du Villard, treasurer; H. A. Tillinghast, secretary.

JOHN HEATHCOTE, PROVIDENCE, R. I., corner Eddy and Clifford streets, manufacturer of improved tentering and drying machines, for drying woolen or worsted goods, shawls, blankets, felts, etc.; also for the finest dress goods, flannels, etc. The original Winsor dryer, patented in 1861, was for a long time the only chain dryer in use for these goods. In 1870 the patents were bought by Mr. Heathcote, and the machine was entirely remodeled. Mr. Heathcote commenced this business in 1866. Mr. Heathcote is also treasurer of the Russell Electric Manufacturing Company, who manufacture mast arms for electric lights.

THE CORLISS STEAM ENGINE CO., PROVIDENCE, R. I.—The origin of this business was about the years 1830-32, when Willard W. Fairbanks and George D. Clark, as Fairbanks & Company, commenced the making of steam boilers and engines near the water front, between Fox Point and India Point. The boilers they made, for land use, were almost invariably thirty inches in diameter, and any length from twenty to thirty feet. Their first steam engines had frames made of wood, and the cylinders were fitted with plain slide valves. Mr. Clark in 1842 was, in politics, an ardent Dorr man, and as the excitement incident to the Dorr War ran high, Mr. Fairbanks bought Mr. Clark's interest. In 1843-4 the firm became Fairbanks, Bancroft & Co. Edward Bancroft had been for a while with the High Street Furnace Company. Captain John Barston joined the firm about this time. Soon Mr. Fairbanks sold his interest and went to the Taunton Locomotive Works as agent. Edwin J. Nightingale joined the firm—Bancroft, Nightingale & Company. In 1846 George H. Corliss joined the firm, which became Corliss, Nightingale & Company. Edward Bancroft went to Philadelphia, and with William Sellers founded the firm of Bancroft & Sellers. Mr. Corliss came to Providence in 1844 from New York state (born at Easton, Washington county, June 2, 1817) to complete his harness-sewing machine (patented 1843), and had entered the employ of Fairbanks, Bancroft

& Company as draughtsman. On coming to Providence Mr. Corliss went first to the High Street Furnace Company, but soon took his sewing machine to Fairbanks, Bancroft & Company's shops for completion. However, he showed such an aptitude and adaptability for the steam engine business that he was led to abandon his sewing machine and take up the steam engine business. The firm was at this time (1844-47) extensively engaged in the manufacture of steam engines, as, for instance, a pair of horizontal engines, twenty-four inches diameter of cylinder by four feet stroke for the James Steam Mills, Newburyport, Mass., and for the Naumkeag Mills, Salem, Mass., a pair of upright beam-engines of about five hundred horse-power. Mr. Corliss' first steam engine, embodying his improvements, patented March 10, 1849, was started in February, 1848, in the works of the Providence Dyeing, Bleaching and Calendering Company. This was an upright beam-engine of about two hundred horse-power, and had two inlet and two exhaust valves of the plain slide-valve type placed in the top and bottom heads. The detachment of the steam valves, to close, was effected by two helical cams on the regulator spindle or shaft. Three, in all, of these new engines, and of very large size, were immediately ordered and built, one for each of the following: the Suffolk County Flour Mills, Boston; the Utica Steam Cotton Company, Utica, N. Y.; and the Wamsutta Mills, New Bedford, Mass. Their great success in economy of fuel and perfect regulation warranted the immediate construction of a new plant (present location)—the machine shop alone had a length of 608 feet.

Mr. Corliss invented some machine tools of large size and novel design, and all things pointed to immediate prosperity. Mr. Barstow retired from the firm about January 1, 1850, and the firm became Corliss & Nightingale. In 1856, the company was chartered under Rhode Island laws, as the Corliss Steam Engine Company; the incorporators were: George H. Corliss, Edwin J. Nightingale, John H. Clark, Scott A. Smith and Granville Wood. From 1852 until 1859 there was long and costly patent litigation; first by the suit of F. E. Sickels against parties using Mr. Corliss' invention; then by Mr. Corliss against users of the Greene engine, all of which resulted in Mr. Corliss' favor. In 1863, Mr. Corliss' patents were extended for seven years, and during the Civil War the plant was greatly improved and extended. In 1870, Mr. Corliss became sole proprietor of the Corliss Steam Engine Company, the several corporators above mentioned, together with William R. Talbot and William Corliss, having at different periods sold their interests. In 1870, Mr. Corliss received the Rumford medal from the American Academy of Arts and Sciences. In 1873, he received at the Vienna exhibition a diploma of honor, being the only one to receive such honor who was not an actual exhibitor. In February, 1886, the King of the Belgians made Mr. Corliss an officer of the Order of Leopold. On March 10, 1879, the Institute of France made formal proclamation to him of the Montyon prize. In the years 1886-88, Mr. Corliss thoroughly reorganized the machine department of his works, by his invention of new machinery for the more complete, accurate and rapid making of steam engines. He died February 21, 1888. In May, 1894, Mr. David M. Thompson took the general management of the Corliss works. Mr. Thompson is a mechanical engineer, and business man of wide reputation and experience, having for a number of years occupied a high position as business manager and mechanical engineer for B. B. & R. Knight. Officers: D. M. Thompson, president and treasurer; William B. Sherman, secretary; Charles E. Giles, agent.

NEW ENGLAND BUTT CO., Pearl Street, Providence, R. I.—In 1842 Mr. Nicholas A. Fenner with others commenced the manufacture, in Providence, of butt hinges of cast iron, an article at that time mostly imported from England. The con-

cern had a precarious existence for many years in its efforts to secure for home industry a new business. The long familiarity of dealers and users with English-made goods prejudiced them against the new enterprise. But success came with untiring effort.

In 1853 the company organized under a Rhode Island charter, the corporators being Nicholas Fenner, Amos C. Barstow, Apollos Richmond, and Henry P. Knight, they being members of the co-partnership. The capital was \$40,000, which from time to time has been increased to \$200,000.

The original business of butt hinges has long ceased to be the principal product of this company. The manufacture of braiding machines, which previous to 1855 had been imported from England, was entered into by this company, and these machines so perfected, that in a few years the manufacture of braids was established. The braiding machine has become an important factor in the electrical industry for covering wires and cables for insulators, for cables, line wires, polishing, stranding, winding, taping, and armoring.

Their foundry department has much fame for the fine quality, as well as the quantity, of its product.

SLATER COTTON CO., Pawtucket, R. I.—This company was incorporated in 1870 with a paid-up capital of \$600,000 to engage in the manufacture of fine sheetings, shirtings, cambrics, muslins, etc. Mills No. 1 and No. 2, both of large dimensions; they use steam power. They have 54,000 spindles and 1,362 looms. Their "Pride of the West" is a special brand. C. E. Lindsey, treasurer; V. T. Barber, superintendent.

UNION WADDING CO., Pawtucket, R. I., commenced business in 1860. Manufacture wadding, batting and waste. Capital, \$1,000,000. Two hundred and eighty-eight cards. New York office, 49 Leonard street. Officers: Lyman B. Goff, president; George M. Thornton, treasurer; Andrew M. Hull, secretary; H. A. Stearns, vice-president and superintendent.

AMERICAN YARN MANUFACTURING CO., Pawtucket.—This company was incorporated in 1892 under Rhode Island laws. George M. Thornton, Treasurer; H. Conant, president; Lewis M. Smith, agent. Seventeen thousand five hundred spindles, three hundred and fifty-two looms. Manufacture twills, sateens, zannillas, etc. Sell direct.

HOPE WEBBING CO., Pawtucket, R. I. (P. O., Providence, R. I.).—This business was commenced in Providence in 1883 by Charles Sisson and Oscar A. Steere for the manufacture of narrow woven fabrics. The business was incorporated in 1890 and removed to Pawtucket. Capital, \$200,000. Officers, Hezekiah Conant, president; Charles Sisson, treasurer; Oscar A. Steere, superintendent.

CORNELL & ANDREWS, Refiners, Providence.—This house was established in 1890 by Mr. William Oscar Cornell, Mr. Frederick W. Andrews and his son, Mr. Frank H. Andrews. Business relations extend throughout the United States and Canada. They also deal in fine metals and jewelers' and photographers' chemicals. Mr. F. W. Andrews' experience as a practical assayer extends over a period of more than twenty-five years. Mr. F. H. Andrews is a graduate of Brown University, is a practical chemist and refiner, and a member of the American Chemical Society. Equipment, thirteen furnaces, one pair of rolls, three crushers and two separators. Floor space, eighty-five hundred square feet. Yearly business, about \$250,000.

THE ATWOOD-CRAWFORD CO., Pawtucket, R. I., manufacturers of "silk and thread spools printed in colors, braider, spinning and twister bobbins, braid rolls, fancy turning, etc." This business was started in a small way by Robert Cushman

in 1848 at Cumberland, but was removed to Valley Falls in 1850. George Cushman joined in the business, and the firm was R. & G. Cushman for several years. In 1857 the company removed to its present location in Pawtucket. Cushman & Phillips succeeded in 1868, and Atwood, Crawford & Company in 1875. In 1890 it was incorporated. They use over one million, two hundred thousand feet of thoroughly seasoned white birch lumber, and the stock carried ranges from five hundred thousand to one million, five hundred thousand feet. Officers, Abner Atwood, president; Walter Crawford, treasurer; Robert Cushman, secretary.

E. JENCKES MANUFACTURING CO., Weeden street, Pawtucket, R. I., manufacturers of ring travelers, mill wire goods, bright wire goods, cotton drum and spindle banding, braided banding, coat and hat hooks, colored cotton yarn for hosiery and knitting purposes, and ladies' and men's cotton and wool hosiery. This business was commenced in 1853 by Nathan P. Hicks, who began the manufacture of improved ring travelers soon after the invention of ring spinning. His experience as an overseer in a spinning room had taught him the defects of the then existing travelers, and he set about remedying them. In this he succeeded, manufacturing first in Valley Falls, then in Providence, but in 1867 he removed to Pawtucket. He carried on the business with different associates until 1871, when Edwin Jenckes joined with him under the firm-name of E. Jenckes & Company. They occupied the upper stories of the Slater Mill until 1883, when Mr. Hicks retired from the firm. Mr. Jenckes then took the business to the old Jenks Mill, rear of East avenue, but remained there only a brief period, having already begun the erection of a new building on the present site on Weeden street. The business was removed there and the company was incorporated. Since, other buildings have been erected until the establishment has been trebled in size, and the business has been extended in proportion. Within a few years the company has transferred its yarn business to this plant from Woonsocket. Over six hundred persons are employed.

MECHANICAL FABRIC COMPANY, office and works, 40 Sprague street, Providence, Rhode Island. This was organized and incorporated in 1890 for the manufacture of card cloths. In 1891 they commenced the manufacture of pneumatic bicycle tires, and in 1892 the manufacture of India rubber thread was begun. A. L. Kelley, treasurer.

ARNOLD, PECK & COMPANY, (originated by John H. Mason in 1815), Providence, R. I., manufacturers of lakes—pulp colors—for paper-makers' use and calico-printers, paris green, blue vitriol or sulphate of copper, and other chemicals. Also dealers in manufacturers' chemicals and dye-stuffs. This firm are also selling agents for the Mathieson Alkali Works, whose plants are at Saltville, Va., and Niagara Falls, N. Y., with New York city office, 31 and 33 Pine street. This latter company is composed principally of Providence capitalists, and has a capital of \$5,000,000—actual invested capital is \$4,000,000. Officers: Edward E. Arnold, president; John Russell Gladding, treasurer and secretary; Julian S. Goetchius, assistant treasurer. Their manufactures are soda-ash or carbonate of soda, caustic soda or hydrate of soda, bicarbonate of soda and bleaching-powders or chloride of lime; also salt, of which their annual product is about 20,000 tons, for table and dairy use. The product of soda-ash is 70,000 tons a year. Their plant at Niagara Falls, now in course of erection, to use 2,000 electrical horsepower, is for the production of caustic soda or hydrate of soda of 99.3 per cent., and bleaching powders by the Castner patent electrolytic process. By June these works will produce 12,000 tons of bleaching powders as a yearly product, besides the caustic soda with an output of ten tons a day.

A careful examination of Castner's electrolytic patent process for producing pure

caustic soda and bleaching-powders, reveals a wonder "quite equal" to a realization of Aladdin's wonder-working lamp. This method has been in operation more than a year at Saltville. There is employed as one of the electrodes a moving body of mercury, and for the other a specially prepared carbon; the life of the carbon is such that there is practically no expense in the manufacture due to its use. And what is as important, the waste of mercury is less than one-half of one per cent. per annum. The intention of this company is to increase their plant at Niagara Falls to 6,000 horse-power, also to establish additional large plants in other parts of the country.

W. W. WHITTEN CYCLE MANUFACTURING CO.—Factory, Potters avenue, corner Melrose street; salesrooms, 148-156 South Main street, Providence, R. I. The business was founded in 1886 by W. W. Whitten, for dealing in bicycles, and in 1887 he began to import bicycles and the parts of the same from Europe, carrying on a large business, selling to the trade over the country. They were soon buying from no less than six foreign manufacturers, and through their enterprise many bicycle-makers were thus enabled to supply themselves with necessary parts and get their wheels on the market much sooner than otherwise. In 1893 the present company was organized, and they commenced the manufacture of bicycles and parts with a well-equipped factory, under the management of Charles H. Weld, whose general experience has been great, and whose special training was had while in charge of a cycle manufactory in Marshall, Mich. The "Whitten" is the name of the bicycle made by them; they build a roadster, a special, and their well-known racer, each having its own distinctive colors. This company have constructed a successful motor cycle, which has been duly patented, and is not only applicable to cycles, but as well to auto-mobile machines.

They are agents for leading makes of bicycles, and general jobbers of bicycles, athletic and sporting goods of every description. In June, 1896, the company was organized under a Rhode Island charter. The members of this company and its officers are: W. W. Whitten, president and treasurer; Charles H. Weld, secretary; Howard L. Perkins, vice-president.

THE MOSLER SAFE CO.—Their manufactory is in Auburn, R. I. At their works are made the Corliss burglar-proof safes and vault doors, the invention of Mr. William Corliss, who made his first spherical, chilled-iron, burglar-proof safe at the Rhode Island Locomotive Works in 1875. The Corliss Safe Manufacturing Company was organized in 1877. In 1889 the Corliss Safe and Vault-Door Company was organized, and the Mosler and Corliss companies were united in 1895. It may be safely said that the Corliss safe, in all it represents, is not second in point of value, and in the amount of invention required, to any other manufacture of this century. Address: Providence, R. I., or New York city.

THE AMERICAN CARD CLOTHING CO., 58 Warren street, Providence, commenced business in 1890, under its present name. The business was originated in Lawrence, Mass., in 1856, and removed to Providence in 1885, operating under the name of the Stedman & Fuller Manufacturing Company until 1890, when they sold out to the American Card Clothing Company of Worcester. This Providence branch of the company make principally card clothing with the "Flexifort," or patent warp foundation, for fillet cylinders, doffers, workers, etc., having no stretch, combined with perfect elasticity. Average number of workmen, about fifty. Officers: Mr. George A. Fuller, manager; John J. Hoey, superintendent.

JOSEPH NEWHALL & CO.—Dalbeattie Granite Works, Westerly, R. I. Makers of fine monuments, vaults and statuary of blue Westerly granite, from their own quarries. This business was established in 1885, commencing with in all ten men. In

1896 the product was a little over 41,000 cubic feet, giving employment to one hundred and forty workmen.

VOLNEY W. MASON & COMPANY, Lafayette street, Providence, R. I.—This firm was established in 1860 by V. W. Mason, William Mason, and W. J. Innis, May 20, 1860, for the manufacture of friction clutch pulleys, under name of Providence Friction Clutch Company, corner of Smith and Charles streets, later removed to Providence Tool Company building, on Wickenden street. They were pioneers in this matter of friction clutch pulleys in this country, and such is the reputation gained that this invention has been shipped to all parts of the civilized globe. They also make a specialty of "Whip Hoists,"—and, as an example of their use, they equipped the Harlem Railroad's hay depot with sixty-one of them. Volney W. Mason is now sole proprietor. Capital invested, about \$30,000; average number of men employed about twenty-five. Exhibited at Philadelphia, 1876; Paris, 1878; Australia, 1882; Amsterdam, Holland, 1884; New Orleans, 1884, and others.

NATIONAL RING TRAVELER COMPANY, Providence, R. I.—Manufacturers of ring travelers and loom forks, also makers of bronze composition, twister travelers and saddles with rawhide bearings. A. C. Tingley, treasurer and general manager.

BUILDERS' IRON FOUNDRY.—Office and works Coddington street, Providence R. I.—This business was started as a foundry and machine shop, under the name of the High Street Furnace, in 1820. In 1832, in addition to its first beginnings as a general foundry, the High Street Furnace Company made iron planing machines, turning lathes, and other machine tools. When, in 1853, it was organized as the Builders' Iron Foundry, they had a complete line of stove and furnace patterns. In 1862 they were principally engaged in the manufacture of stoves, furnaces, architectural iron work, and steam engines. During the War of the Rebellion the foundry manufactured a large quantity of shot and shell, also more than three hundred of 6.4 to 13-inch cannon for the United States government.

From 1866 to 1887 the foundry was occupied with contracts for various kinds of heavy iron work; the equipment established for the manufacture of large cannon placing it in condition to make heavy castings and to machine them. Many large contracts for bridge piers were taken for different sections of the country. Much special machinery was made for the Calumet and Hecla Mining Company, and the Armington and Sims Engine Company came from Lawrence, Mass., and occupied a part of the foundry building. From 1887, with some interruptions, the works have been largely employed on United States government contracts; although at the same time specialties, such as water pipe, special castings, venturi meters, Rice and Sargent engines, and grinding and polishing machinery have been developed. A specialty with the company is gun iron, air-furnace castings. Their foundry is one of the largest in the New England states, having a floor area of about 20,000 square feet. Officers: Z. Chaffee, president; R. A. Robertson, treasurer.

A. CARPENTER & SONS' FOUNDRY COMPANY, 272 West Exchange street, Providence, R. I., was organized in September, 1865; manufacture all kinds of iron castings. The year ending July, 1896, the gross product was \$120,000. Alva Carpenter, president; William H. Carpenter, vice-president and general manager; Henry A. Carpenter, treasurer.

PHENIX IRON FOUNDRY, Eddy street, between Elm and South Streets. This company was started in 1830, by Mr. George B. Holmes, with Dr. John McKie and the brothers Benjamin, Charles, and Paris Dyer. It was chartered in 1832; capital, \$14,000. Their business was the making of iron castings, and that of general machine work for mills, such as gearing, pulleys, shafting, etc. Mr. McKie was president,

with Mr. Holmes as treasurer, the latter being the only active member. In 1848 a second machine department, or shop, was built at the corner of Elm and Butler streets. Mr. Holmes managed the business as agent and treasurer, with marked judgment and ability until 1868, when James S. Anthony succeeded him as agent. On the death of Mr. Holmes, in 1879, Mr. B. C. Gladding became treasurer. In 1885, on the death of Mr. Anthony, he was succeeded by Mr. Amos W. C. Arnold as agent. Mr. Charles R. Earle was made president and treasurer in 1886. Present capital, \$140,000.

This company do a large business in general foundry work. The special machinery made by them is for bleacheries, print works, and mills, which includes shafting, pulleys, gears, calendering rolls, etc., also tenter dryers, and hydraulic presses—of the latter, the first ever made in this country, and which is now in their possession. They also have a foundry for brass and bronze castings, etc.

Mr. Arnold Peters, who was a noted mechanical engineer in his day, was in the employ of this company from 1839 until 1884, the year of his death.

Through their long existence of over sixty-five years this company has successfully and successfully equipped a large majority of the print works and bleacheries of the country. In years of business activity they employ about two hundred and fifty men.

NEWTON EARLE, successor to the Snow & Earle Company, 8 Exchange Place, Providence.—Dealers in all kinds of chemicals, dyes, dyewoods used by calico printers, dyers, bleachers, jewelers, soap-makers and tanners. This business was established in 1857 by Snow & Lewis, who were succeeded by Snow & Earle, and in 1884 the present company was incorporated under the laws of Rhode Island. They are proprietors of the Eagle Dye Works, where cotton is dyed and finished from the bale, making a specialty of fast-black cotton; while special attention is given to dyeing colors fast and the introduction of colored cottons for woolen mixtures. In this business about seventy-five skilled hands are employed.

In very intimate association with manufacturing industries is that of agents and dealers in mill furnishings. THE STANDARD MILL SUPPLY COMPANY, 77 Exchange Place, Providence, commenced business October 1, 1896. Incorporated with a capital of \$100,000. They are manufacturers' agents, importers and exporters, and have had a long and profitable experience in their line. Officers: Rufus B. Goff, president; Harry M. Smith, vice-president; Henry C. Clark, treasurer; Harry C. Cheney, secretary; Fred. E. Spalding.

THE PROVIDENCE COAL COMPANY, Providence, R. I.—This business was established in 1839 by Sterry Clark and Samuel R. Jackson, who were pioneers in the introduction of Anthracite coal into this market. During the next twenty years the firm became successively Clark & Webb, Clark & Coggeshall, until in 1860 Henry Clark succeeded to the business, and later Tucker, Swan & Co., became the proprietors. They were succeeded in 1878 by Tucker & Little, and in 1881 by the present company. Their coal packets, as wholesale and retail dealers, are the largest in the world, having a capacity of thirty-five thousand tons. About one hundred and twenty men are employed, also ninety horses. Their business extends throughout Rhode Island and largely into Connecticut and Massachusetts. The present proprietors are Henry C. Clark and Harry Clark.

THE NATIONAL AND PROVIDENCE WORSTED MILLS, PROVIDENCE, R. I.—This costly and enormous plant comprises six handsome brick structures, fitted with the most complete modern machinery known in the textile business. Over two thousand operatives are employed. Every operation necessary, from the reception of the raw wool, is done on the premises, and embraces the washing, scouring and drying of the

wool, then spun into yarn, dyed the required color, then woven into the finest fabrics known in this or any other country.

The products of these mills are divided into two classes, those of worsted and mohair, which are finished to take the place of silk, and fine worsted yarns, which are also finished for the same purpose. About two thousand, seven hundred horse-power is used. This immense industry was started by Mr. Charles Fletcher in 1875, in a very small way, and the increase has been due to his complete knowledge of the business, and his sagacious enterprise as a manufacturer. These mills were consolidated in 1894 with a capital of \$2,000,000. Officers: Charles Fletcher, president and general manager; Joseph E. Fletcher, treasurer.

THE PROVIDENCE STEAM ENGINE COMPANY, PROVIDENCE, R. I.—The origin of this company is stated to have been due to a noted mechanic, John Babcock, who is thus credited with being the founder in Providence of a business known the world over by its high reputation. Robert L. Thurston, who had been in this business for some years, organized with others, in 1834, under the name of the Providence Steam Engine Company, which, however, was in 1838 changed to Thurston, Greene & Company. In June, 1845, their buildings were destroyed by fire, when Mr. Greene, of the firm (Noble T.), went to Europe and procured new machinery for continuing the business. This firm continued until 1854, when Mr. Henry W. Gardner became a partner, and the firm-name became Thurston, Gardner & Company, up to 1863; at this time R. L. Thurston and G. G. Hicks retired. In 1863, the company organized under an existing charter as the Providence Steam Engine Company. Capital, \$300,000. Byron Sprague, president; W. W. Paine, secretary and treasurer; and Henry W. Gardner, agent. In 1866, Byron Sprague died and W. H. Reynolds became president. Soon Mr. Paine resigned and Mr. Gardner was made treasurer, with T. W. Phillips, secretary. Subsequently Mr. Gardner was chosen president and treasurer. From 1861 until 1884 the works were very largely engaged in the manufacture of marine engines and boilers, particularly for the United States government, and always with great success.

• Since 1869, this company have in a remarkably successful manner built the "Improved Greene Engine," originally patented by Noble T. Greene in 1855, but the manufacture of which was enjoined until 1869. These engines have the Greene automatic drop cut-off controlled by the fly ball governor. The two inlet and two exhaust valves are all plain slide valves, which thus wear to an even surface, and each pair is operated by a separate eccentric to give adjustments suited to varied requirements, for economical and smooth working, and better regulation of speed. The whole mechanical proportions and dispositions of this "Improved Greene Engine" are very superior for stability, durability and economical working, and the credit for this is due to their able mechanical engineer, Mr. Henry J. Johnson. Employment is given to two hundred and fifty or three hundred men. Officers: Rathbone Gardner, president; William B. Waterman, treasurer; T. W. Phillips, secretary.

JOHN W. DANIELSON, 20 Market Square, Providence, R. I., treasurer of the following companies: Lockwood Company, Waterville, Maine; Sheetings and Shirtings, 90,000 spindles and 2,169 looms; Quinebaug Company, Danielsonville, Conn.; Sheetings and Shirtings, 59,864 spindles, 1,514 looms; Wauregan Mills, Wauregan, Conn., lawns and fancy goods, 59,616 spindles, 1,464 looms; Lewiston Bleachery and Dye Works, Lewiston, Maine, 25 calenders, 35 tons per day.

KENDALL MANUFACTURING Co., corner of Friendship and Page streets, Providence, R. I., manufacturers of family soap and "soapine."—This business was be-

gun by Henry L. Kendall (who came to Providence from Watertown, Mass.), in 1827, at the present location. Later, and for a time, two of his brothers were associated with him under the firm-name of H. L. Kendall & Company. Mr. Kendall died July 10, 1883. In 1860 the business was incorporated under the name of The Kendall Manufacturing Company, of which Mr. Nicholas Sheldon has been treasurer and manager from that date. This business has grown to great magnitude under the past and present able management.

EDWARD P. TAFT, 36 South Water street, Providence, R. I., treasurer of the Ponemah Mills, Taftsville (Norwich), Conn., organized December, 1869.—Mill started November 16, 1871. The original corporators were Cyrus Taft, Edward P. Taft, Moses Peirce and James S. Atwood. Manufacture fancy woven goods and fine goods for printing. About 119,000 spindles, 2,775 looms, steam, water and electric power. Officers, W. A. Slater, president; Edward P. Taft, treasurer; John Eccles, superintendent.

STAFFORD MANUFACTURING CO., Central Falls, R. I., makers of spool-thread and yarn, 16 to 60.—This firm originated in 1842, when John A. Adams formed a co-partnership with Mr. Willard as Willard & Adams, for the manufacture of yarn and thread; this continued for three years, when Mr. Adams had for partners Joseph Wood and others for the making of cotton-goods. In 1848 the business was carried on under the name of Wood & Adams. In 1863 they sold their mill to the Pawtucket Hair Cloth Company. Soon they bought the business of Rufus J. Stafford, and with others organized the Stafford Manufacturing Company. Mr. Wood died in 1873. Mr. Adams continued the business as an active member until his death in 1892. 12,000 spindles, steam and water power; capital \$300,000. S. L. Adams, treasurer; J. F. Adams, agent.

PROVIDENCE BELTING CO., 37 and 39 Charles street, Providence, R. I.—This business was established in 1885 by J. B. Walsh and James P. Meehan, both men of long practical experience in business. They manufacture both oak-tanned leather belting and the folded twist round belts. They have machines, recently imported, for the making of belting both by wax-thread sewing, and copper wire sewing. Large belts made up to six feet in width and one hundred and twenty-five feet in length weighing over two thousand pounds. Represented in Boston by Holt, Shattuck & Co., 45 Charlestown street; in New York city by D. Macwatty & Co., 69 Centre street.

CRANSTON WORSTED MILL, Bristol, R. I.—Incorporated 1887; capital \$100,000. Manufacture mohair, worsted, genapped and novelty yarn; six combs, one set preparers, twenty-four spinning frames. Use steam power. Sell direct. Charles B. Rockwell, treasurer.

JOHN M. KIMBALL, 4 Market Square, Providence, R. I., treasurer of the Slatersville Mills, Slatersville, R. I.—Manufacturers of cheviots, cotton flannels, gingham, and dress goods. Twenty thousand spindles, seven hundred and sixty looms; steam and water power; dye. Capital, \$400,000. Officers: A. A. Young, president; J. M. Kimball, treasurer; W. P. Holt, superintendent. Also special attorney of the W. A. Slater (Jewett City Mills), Jewett City, Conn., makers of cheviots, flannels and dress goods. About nineteen thousand spindles and seven hundred looms. H. W. Kimball, superintendent.

PEACE DALE MANUFACTURING CO., Peace Dale, R. I. (Mill established 1801).—Manufacturers of shawls, cassimeres, overcoatings, worsted coatings and worsted serges. Ten sets cards, seven combs, five thousand three hundred and twenty worsted spindles and one hundred and fifty-five looms. Also dyeing. Officers; Roland Hazard,

president; R. G. Hazard, treasurer; William C. Greene, general manager; Samuel S. Dale, superintendent. Providence office, 29 Weybosset street.

THE AMERICAN WRINGER CO., Woonsocket, R. I., manufacturers of clothes wringers, wringing rolls, household and hardware specialties. New York city office, 99 Chambers street. Officers: Joseph Banigan, president; George Reuter, Jr., general manager and treasurer; J. F. Hemenway, assistant general manager; W. S. Ballou, secretary.

COLLINS BROTHERS, Central Falls, R. I., manufacturers of cotton and woolen twisters, cotton and woolen spinning frames, patent stop-motion drum doubling machines, patent filling winding frames; also drum winders to wind from skeins. The business was founded in 1865 by W. W. and J. W. Collins—Collins Brothers. In 1885 Collins & Son, J. W. Collins, retiring and Henry Collins became a partner; later in this year, W. W. Collins retired and J. W. Collins re-entered the business—the name Collins Brothers was resumed. An average of sixty hands or more are employed.

THE AMERICAN HAIR CLOTH COMPANY, Pawtucket, R. I.—This business was originally started in 1857, at the Slater Mills, as the Pawtucket Hair Cloth Company. The company consisted of David Ryder, J. A. Ryder and Freeman Baxter. New buildings were erected in 1864. In 1893 the American Hair Cloth Company was organized, being the consolidation of the Pawtucket Hair Cloth Company, the American Hair Cloth Padding Company, and the National Hair Seating Company. Capital, \$350,000. Officers: Henry B. Metcalf, president; Jude Taylor, vice-president; Olney Arnold, treasurer; Charles E. Pervear, agent.

JAMES BROWN (Brown Machine Shop), manufacturer of cotton mules and speeders, also cordage machinery, Pawtucket, R. I.—This business originated in 1813, when Pitcher & Gray started the machine business. In 1824 Mr. James S. Brown, father of the present owner, bought Mr. Gray's interest, and the firm became Pitcher & Brown until 1842, when Mr. Pitcher retired. The business was then carried on in the "Bridge Mill," where it continued until 1850. Mr. James S. Brown was the inventor, in 1820, of the slide-rest on turning lathes for adjusting the height of the tool while in use; also, in 1830, he made his invention of a machine for cutting bevel gears; in 1838 he obtained a patent for a machine to bore the arm of the long flyer roving machine; in 1842 he patented a lathe for turning bodies, longitudinally, of irregular form. He erected a foundry in 1847 on Main street. In 1849 the present large manufactory was erected. In it was put as motive power one of the earliest make of Corliss engines; it was a beam upright of about sixty horse-power, and had the present type of rotative valves and centrally located wrist plate. Before the Civil War Mr. Brown built principally the Sharp & Roberts mule and the long-flyer speeder, but in 1857 he took out his patent for improvements on the American long-flyer roving machines. This improvement filled his shop with work to the exclusion of mules. After 1865 he built, with improvements of his own, the English mule of Parke, Curtis & Madley. Mr. Brown died in 1879.

THE WILLIAM H. HASKELL COMPANY, manufacturers of bolts, nuts, washers and coach screws, Pawtucket, R. I. This business dates back to 1820, when Colonel Stephen Jenks began the business, he being the first in Pawtucket to introduce cold punching from bar and sheet iron. With Mr. Jenks was subsequently associated Mr. Henry Pinkham. In 1850, W. H. Haskell, with Curtis Collyer and Lewis T. Haskell, bought an interest in the bolt and screw-making plant of Pinkham & Jenks. The new company became Pinkham, Haskell & Company. In 1857, he became sole owner. In 1861, Robert Sherman became special partner until 1868. The works

were enlarged in 1860-61. Annual production about \$200,000 in value. Incorporated in 1881. Officers: William H. Haskell, president; Edmund S. Mason, treasurer; Daniel A. Hunt, agent.

PROVIDENCE DYEING, BLEACHING AND CALENDERING COMPANY, 52 Valley street, Providence, R. I. This company was founded in 1814, under the name of the Patent Calender Company, and began business in a small way on Sabin street. It has, from its origin, been an enterprising and successful corporation. It has the honor of being the first manufactory in the world to use a Corliss steam engine; it was of large power, and erected in February, 1848. Their plant was re-built and re-modeled after 1885, and they now cover five acres of ground with ten large buildings, having floor space of 6,900 square feet. Dyeing was abandoned in 1885. They now bleach an average of over 30,000,000 yards of cloth a year. They bleach and finish shirtings, lawns, handkerchiefs, butter and cheese cloths, cambrics, etc., making a specialty of fine dress-goods. Mr. John P. Farnsworth, treasurer, agent and general manager.

CUTLER MANUFACTURING COMPANY, Warren, R. I., commenced 1861. Capital, \$300,000. Manufacture yarns (5 to 30) and warps; 28,668 spindles; steam power. Frank Hail Brown, treasurer and agent; F. R. Simmons, superintendent.

WARREN MANUFACTURING COMPANY, Warren, R. I. Commenced 1847. Manufacture sheetings, shirtings, twills, sateens, and yarns. Capital, \$600,000; 76,736 spindles; 2,120 looms; steam-power. John Waterman, treasurer; Arnold Schaer, superintendent.

DAVOL RUBBER CO., 69 Point street, Providence, R. I.—This business was established by Joseph Davol in 1874, as the Davol Manufacturing Company. Incorporated in 1883 under Rhode Island laws. The plant has been three times enlarged. Now employ about four hundred skilled hands in manufacturing fine rubber goods for druggists, surgical and stationery trade. Joseph Davol, president and treasurer.

VESTA KNITTING MILLS (R. Berry & Boyden), corner Butler and Bassett street, Providence, R. I., incorporated 1891. Manufacture cotton and woolen hosiery, and cotton and woolen underwear. R. Berry, president; George E. Boyden, secretary. Sell direct. 256 Church street, New York city.

PROVIDENCE LITHOGRAPH CO., 102 Westfield street, Providence, R. I.—This business was founded in 1866. In 1892 the present extensive works were taken possession of, and equipped with all new machinery. Both stone and zinc processes are used. Floor space, 28,800 feet. Officers: J. G. Harris, treasurer; E. S. Jones, secretary; J. H. Smith, superintendent.

ROYAL WEAVING CO., Saylesville, R. I. Incorporated 1889; capital \$150,000. Cotton, woolen and silk fabrics. Two hundred looms. Officers: Darius Goff, president; Charles E. Pervear, treasurer; Joseph Ott, agent.

WOOD RIVER MILL (William A. Walton & Co.) manufacture woolen, fancy chevots. Nine sets cards; forty broad looms.

CLARK MANUFACTURING CO., No. 50 Ashburton street, Providence, R. I., manufacturers of coffins and caskets, wood or cloth covered; and every kind of supplies for undertakers and embalmers kept in stock. This business was founded in 1871 by Mr. John L. Clark, and has been conducted in its present location since 1881. Incorporated in 1888, under the Rhode Island laws. Steam power, and modern machinery. Average number of workmen, about fifty.

THE AMERICAN SUPPLY CO., of Providence, R. I. Office at 11 and 13 Eddy street, with factories at Valley Falls, R. I., and Fall River, Mass., manufacturers of reeds, harness and leather-beltng.

This business was commenced by Mr. John Kendrick at Woonsocket, R. I., in 1846, where he employed three girls to help him in the making of loom-harness. Up to that time each weaving-mill made its own harness. Later Mr. Kendrick added the manufacture of reeds. In 1848 he established a branch shop at Worcester, Mass., by this time employing in all twenty-five girls. In 1851 he removed permanently to Providence, locating at 14 Exchange Place. In 1860 seventy-five hands were employed. Automatic machinery soon displaced hand-work in the knitting of harness, and in 1866 the annual production had reached thirty thousand sets. In October, 1866, a branch shop was established at Fall River, Mass., which was carried on by John and Joseph H. Kendrick until 1873, when the Providence and Fall River shops were merged into the Kendrick Loom Harness Company, which continued business on the corner of Clifford and Eddy streets for ten years. At this time machinery had been so perfected by this company that the complete process of harness-making was accomplished with little hand-labor. Up to about 1873 the only machine that made a perfect harness was the so-called double-knot machine invented by Joseph S. Winsor, of Providence. These machines, with the patents on the same, were bought by John Kendrick about 1862, and were controlled by him and his successors. This invention for the manufacture of the double-knot loom-harness was a very important one, as at that time each heddle in the hand-made harness had, at the bottom of the eye, a loop, which was difficult to permanently fasten; when loosened, the whole harness soon became useless. This patented double-knot harness, having a single knot, at each end of an eye, which cannot be loosened, has proved to be the most durable harness ever put upon the market. Many of the best mills in the country, and those making the finest goods, to day will use no other. Thirty thousand looms in the city of Fall River alone are using this harness, and the American Supply Company has sixty of these machines, and are supplying about one hundred thousand looms.

In 1869 Myron Fish removed his business of making reeds and harness from Worcester, Mass. (established 1865), to Valley Falls, R. I. In 1870 John A. Carter commenced the making of loom harness in Providence, but subsequently removed to Fall River, Mass., where he continued until 1876, when he formed a copartnership with Myron Fish (Myron Fish & Co.), and for seven years they carried on the business of making reeds, loom harness and leather belting. In 1883 the above-mentioned firms, who had each gained a wide reputation, consolidated under the name of the American Supply Company. They are one of the largest manufacturers of loom harness in the country, and their goods are in high repute among all the textile mills. They also have a large interest in a factory in Bolton, England, for which they made special machinery. This machine is also in extensive use by the American Supply Company in the manufacture of a combination heddle, composed of twine and metal for Jacquard looms. It is the most perfect heddle in the world, and they sell millions of them. In addition to their manufacturing interests the American Supply Company are large dealers in all kinds of mill supplies, and make a specialty of furnishing new mills complete with all kinds of findings. The officers of the company are: Peleg W. Lippitt, president; John E. Kendrick, vice-president; Myron Fish, treasurer and general manager; Joseph H. Kendrick, general agent, and John A. Carter, secretary.

MR. AUGUSTUS O. BOURN, 53 to 63 Westfield street, prominent manufacturer of India-rubber shoes.—This business was begun in 1894, and about three hundred hands are employed. Goods produced for first grade are stamped "Providence Rubber Shoe Company," the second grade, "Union Shoe Company." The earliest

manufacture of India rubber in Rhode Island was begun in Providence by George Bourn (father of Hon. Augustus O.) about 1840. David L. Winslow was associated with him for a year or two. Mr. Bourn continued the business alone until 1847, when Col. William W. Brown joined him. In 1851 Mr. E. M. Chaffee came into the company—Bourn, Brown & Chaffee. Mr. Chaffee invented the machinery now in universal use. In 1846, Dr. Isaac Hartshorn and the City India Rubber Company also commenced to make rubber shoes. At this date the shoes were lined with red rubber, and were partially cured by dipping them into boiling acid. Vulcanized shoes were not made until several years later; Hartshorn & Co. began to make them about 1849 or 1850, and Bourn, Brown & Chaffee, in 1851. The City Rubber Company's works were destroyed by fire about this period, and they went out of business. A few years later the boilers in Hartshorn & Company's works blew up, the buildings were destroyed by fire and never rebuilt. In 1861, Bourn, Brown & Company were incorporated as the Providence Rubber Company, and largely increased their product during the war. About 1890 they removed to Bristol and became united with the National Rubber Company. In 1859, Augustus O. Bourn, on the death of his father, George O. Bourn, joined in the business and remained until 1889, when he became Consul General of the United States for Italy, at Rome, but returned in 1893.

THE MCWILLIAMS MANUFACTURING COMPANY, Providence, R. I.—This company was founded in 1871, by Mr. John McWilliams, for the manufacture of jewelers' tools, special machinery, and watch-case makers' machinery—which includes patent presses, cutter-holders, patent polishing machines, hardened steel rolls from one to ten inches in diameter, drops, hand and power presses, draw-benches, rotary shears, rotary solder cutters, upright drills, sawing and milling rests, bench lathes, and ingot moulds. Organized under an act of incorporation in 1875, with John McWilliams as treasurer and general manager.

HOWARD STERLING COMPANY, 7 Eddy Street, Providence, silversmiths.—This business was established in 1878 by Hiram Howard as manufacturer of cuff and collar buttons, under the firm-name of H. Howard & Company. In 1884, Stephen C. Howard, son of the founder was admitted to partnership under the firm-name of Howard & Son. In 1891 was succeeded by Howard Son & Company, a corporation created under the laws of the state. In December, 1891, they disposed of their button business, and in January 1892 they took up the manufacture of solid silverware. New York office, 860 Broadway. Officers: Hiram Howard, president; Sullivan Ballou, treasurer; W. Edward Fiske, secretary; Stephen C. Howard, general manager.

MOSHASSUCK BLEACHERY, W. F. & F. C. Sayles, Pawtucket.—This business was established in 1847 by William Francis Sayles, when he purchased the Primby Print Works on the Moshassuck river, and began to bleach cotton cloth. June 1854, the works were burned but were rebuilt in 1855, and produced about six tons of finished goods per day. F. C. Sayles entered the firm in 1866. They have a source of water which is unusually pure. The size of these works have continually increased until now they are the largest in the world, turning out forty tons of finished goods daily employing about eight hundred operatives. The Lorraine Mills have been owned by this firm since 1882, where are manufactured fine worsted and cotton dress goods. Near the bleachery is the Glenlyon Dye Works, a large plant operated in connection with the bleachery. They also have a pumping station, and filtration tanks where the water from their works is purified before flowing back to the river. In 1877 they built the Moshassuck Valley railroad, connecting their works by a distance of

about two miles with the main line between Providence and Pawtucket. Hon. W. F. Sayles died May 7, 1894. In 1896 Mr. F. A. Sayles, son of W. F. Sayles, purchased all the interest of F. C. Sayles in the properties. Frank A. Sayles is now the sole owner of the bleachers to be known as the Sayles bleacheries, which have been recently much extended by the addition of five new buildings. The dye-works have been formed into a corporation—The Glenlyon Dye Works, of Pawtucket, F. A. Sayles, Charles O. Reed and Maurice K. Washburn. Mr. Sayles, president; Mr. Reed, treasurer. Capital stock, \$400,000. The Lorraine Mills (and Crefeld Mills, Westerly, R. I.) were organized under the name of the Lorraine Manufacturing Company; capital, \$1,250,000; F. A. Sayles, C. O. Reed and J. R. MacColl. Mr. Sayles, president, and Mr. MacColl, treasurer.

D. GOFF & SONS, Pawtucket, R. I.—This business was begun in 1861 by Darius Goff and his son, Darius L. Goff, and W. F. and F. C. Sayles for the manufacture of worsted-braids, under the name of the American Worsted Company. This was the first worsted-braid mill in this country. In 1864 the partnership was dissolved, and continued by D. Goff & Sons in the old stone mill on the site of their present location. In 1872 Lyman B., the younger son, was admitted to the firm—D. Goff & Sons. Their product is "Goff's Braid," and is put up in their well-known patented special form. Sold direct to the trade by their representative houses in Chicago, Philadelphia, St. Louis and San Francisco. In 1882 D. Goff & Sons began the manufacture of mohair plushes for upholstering car seats—a new business for this country at that time, and not made in England. The machinery for this was not obtainable in France, where the manufacture was kept a secret. The successful establishment of this industry by the Messrs. Goff has caused a large reduction in the price of the imported goods. In 1884 the entire business was incorporated, with a capital of \$600,000. Mr. Darius Goff, president; D. L. Goff, treasurer and general manager. Mr. Darius Goff died April 14, 1891. At the present time, D. L. Goff is president and treasurer.

CLYDE BLEACHERY AND PRINT WORKS; S. H. Greene & Sons, proprietors, River Point, R. I., also office at 20 Market Square, Providence.—This business was originated in 1828 by Hon. Simon Henry Greene and Edward Pike under the firm-name of Greene & Pike, to bleach and finish white cotton goods. In 1833 they much increased their buildings and added four sections of beetling machinery. They also put in a single-color printing machine and built a small dye house to produce indigo blue prints. In 1839 their bleachery and dye sheds were burned, involving a heavy loss. In 1842 the dye house was enlarged; this year Mr. Pike died. Mr. Greene continued with a lease of his partner's interest until 1845, when he purchased the interest of Mr. Pike's heirs. In 1846 a large stone dye house was built; and another printing machine was added, increasing the production of blue prints. In 1848 another stone dye house was built. In 1853 the beetling machine house and the small dye house were burned. New buildings of stone were erected in place of those destroyed, also others were added and the required machinery was put in to produce madder and other styles of prints. The number of printing machines was increased to seven, to print from one to eight colors. In 1865 Henry L. and John W. A., sons of Mr. Greene, were admitted to partnership; firm-name, S. H. Greene & Sons. In 1869 Edward A. and Christopher R. became partners in the firm. On May 1, 1870, another fire destroyed the bleachery and white finishing departments. The bleachery was immediately rebuilt in an enlarged and improved form; and the white finishing department, also enlarged, was completed three years later. In 1873 Mr. John W. A. Greene died. In 1874 William R. Greene was admitted to the firm. The works

have been from time to time enlarged and improved machinery added. At the present time there are in use ten printing machines capable of printing from one to twelve colors. Employment is given to about seven hundred operatives. More than thirty steam engines are used in addition to the large water-power. Product is upwards of fifty million yards of finished goods per year. The "Washington Prints" is the brand used on the production of this great establishment. Christopher R. Greene died March 13, 1885, and on April 26th Simon Henry Greene, the founder of this industry, also died. William R. Greene died September 23, 1889, and Edward A. Greene died November 14, 1892.

The firm of S. H. Greene & Sons consists at present of Henry L. Greene, Edward A. Greene, Jr., Charles William Greene and Francis W. Greene.

ENFIELD MILLS, William H. Pope, proprietor, 4 Market square, Providence, R. I. Mills at Enfield, Smithfield, R. I. Commenced in 1879. Manufacture light weight goods and fancies. 10,500 spindles, 220 looms. Steam and water power. Sell direct.

GEORGE HAWES & SONS, 23 Dyer street, Providence, R. I., manufacturers of Hawes' improved steam trap. This business was commenced about 1882. It is a simple and efficient form of steam trap, of which over 100,000 have been put into use.

RODMAN MANUFACTURING COMPANY, La Fayette, R. I. This mill was established in 1847; the company was organized as a corporation in 1883. Capital, \$500,000. Manufacture doeskins and jeans. Twenty-five sets of cards, and 438 looms. Dye and finish. Officers: Albert Rodman, president; Walter Rodman, treasurer; Franklin Rodman, superintendent.

RODMAN MANUFACTURING COMPANY (Shady Lee Mill), Allenton, North Kingston, R. I., manufacture white and colored warps and yarns. Ten thousand spindles. Dye. Robert A. Gray, superintendent.

THE WILLIAM CLARK COMPANY, Westerly, R. I., manufacturers of thread. Incorporated 1891. Twenty-five thousand spindles. Mill in Stonington, Conn. Capital, \$600,000. Salesroom and office, 295 Church street, New York city. Officers: William Clark, president and treasurer; Robert K. Clark, secretary; William Clark, Jr., general manager.

WESTERLY WOOLEN COMPANY, W. O. & L. W. Arnold, Westerly, R. I., manufacture fancy cassimeres and worsteds. Twenty-four sets of cards, 104 broad looms. Dye. Mr. Lewis W. Arnold, superintendent. The first mill of this plant was built in 1848-9, by Babcock & Morse. Additions have been made from time to time, particularly in 1862. The present owners came into possession in 1875, who have made additions and improvements. They employ about 450 operators.

NICHOLS & LANGWORTHY MACHINE COMPANY, Locustville Mill, Hope Valley, R. I., manufacture print cloths. About 5000 spindles; 114 looms. Incorporated 1884. Officers: A. G. Nichols, president; H. C. Nichols, treasurer; George H. Nichols, superintendent.

LITTLEFIELD MANUFACTURING CO., Pawtucket, R. I.—Manufacturers of thread, yarns and warps; capital \$150,000; 8,400 spindles. This firm succeeded to David Ryder & Company in 1851, (Mr. Ryder retiring), and continued as Littlefield Brothers until 1889, at which time George L. Littlefield retired. An incorporated company was organized with A. H. Littlefield, president; Eben L. Littlefield, treasurer, and A. H. Littlefield, Jr., secretary.

CAMPBELL MILL POTTER MILL, Westerly, R. I.—Incorporated 1881; capital \$200,000. J. P. Campbell, president and treasurer, 48 Westminster street, Providence; Daniel Taylor, superintendent.

ELIZABETH MILL COMPANY, Hills Grove, R. I.—Capital \$300,000. Manufacture fine combed yarns and thread; about 30,000 spindles. William G. James, agent and superintendent. Mill commenced 1875.

RHODE ISLAND MALLEABLE IRON WORKS, Hills Grove, R. I.—Manufacture all kinds of malleable iron castings. Office, 564 Eddy street, Providence, R. I. Works commenced in 1867. Samuel A. Clough, treasurer; Cyrus P. Clough, agent.

J. T. FISK, Jr., Sheffield Worsted Mills, Pascoag, R. I.—Manufacturer of fancy worsteds.

WALTER F. SLADE & Co., Clear River Woollen Mills, Bridgeton, R. I.—Manufacture fine fancy cassimeres and kerseys.

RIVER SPINNING CO., Woonsocket, R. I.—Manufacturers of woolen and merino yarns, 11 sets of cards and dye. F. C. Sayles, president; F. S. Drown, (Providence, R. I.,) treasurer.

ATLANTIC MILLS, Olneyville (Providence P. O.), R. I. Incorporated 1879; re-organized 1891; capital, \$1,500,000. Manufacture worsted and cotton warp goods, dye and finish. Charles D. Owen, president and agent; Theophilus King, Boston, treasurer; S. N. Lougee, superintendent; A. D. Guilliard & Company, New York city, selling agents.

TILLINGHAST, STILES COMPANY, Providence, R. I. Office, 49 Westminster street; mill, 9 Callender street. Incorporated 1892; capital, \$100,000. G. E. Tillinghast, treasurer. Manufacture yarns, 4's to 120's, single and double, white and colored.

ROYAL CARPET LINING COMPANY, 456 to 468 Potters avenue, Providence, R. I.—This business was commenced in 1895 for the manufacture, by special patented machinery, of the "Royal Sanitary Carpet Lining," the "Crown No. 1," and "Crown No. 2." This carpet lining is woven to a suitable thickness by using crimped cords of paper for the filling, or wool, held (and glued) by a corded warp. The object sought to be accomplished is to have only a clean material, and one not subject to the presence of any insects. This lining is made complete, as above described, or is made with a paper top and bottom enclosing the woven part. This new product was patented June 23, 1896. Officers: William F. Grubb, president; William A. Mauran, treasurer and secretary; Suchet Mauran, manager. New York office: Herbert Plimpton, 100 Worth street; Chicago office: James W. Benham, 145 La Salle street.

LEBANON MILLS COMPANY.—Edward Thayer, proprietor; 106 Broad street, Pawtucket, R. I. Manufacture knitted fabrics and rubber lining; 65 knitting machines. Commenced in 1858 by Alanson Thayer and Mr. Gage, as Thayer & Gage. On the retirement of Mr. Gage in 1866 Mr. Edward Thayer, son of Alanson Thayer, was admitted to the firm—Alanson Thayer & Son. In 1868, on the death of Alanson Thayer, Edward Thayer became sole proprietor. In February, 1888, the mill built in 1858–9 was destroyed by fire, and the business was removed to Pawtucket.

CHEMNITZ COMPANY, 454 Potter's avenue, Providence, R. I.—Capital, \$45,000. Manufacture fashioned seamless cotton and wool hosiery; 140 knitting machines; capacity, 1500 pairs of hosiery a week. George R. McAuslan, president and treasurer; Joseph G. Burton, general manager.

JAMES H. TOWER, 48 to 56 Borden street, Providence, R. I., manufacturer of fire escapes, balconies, ladders, iron bridges, railings, fences, shutters and general sheet iron work, iron beams, girders and all kinds of iron work for buildings. New England agents for the New Jersey Steel and Iron Company for bridges, roofs, etc.

J. & P. COATS (Limited), Pawtucket, R. I., manufacturers of spool cotton. Have about two hundred thousand spindles. Invested capital over \$4,000,000. This busi-

ness originated in 1868, when Hezekiah Conant organized the Conant Thread Company with an authorized capital of \$100,000; he was made treasurer and manager. In 1869 J. & P. Coats, of Paisley, Scotland, became interested in the business and new buildings were erected, the mill No. 2 being finished in April, 1870, and a bleachery in 1871. No. 3 mill was commenced in 1873. No. 4 mill was erected in 1876. A dye-house was built in 1877, and 1881 the No. 5 mill was built. Previous to 1873 the yarn was imported from Scotland. Much of the machinery was imported from England, but Mr. Conant's inventions were largely used. Hezekiah Conant, general manager; Joseph Belfield, superintendent.

C. B. COTTRELL & SONS Co., Westerly, R. I., manufacturers of printing presses. Employ about four hundred and fifty operatives. Among the special presses is their web perfecting press for magazine use, which is used extensively in this country, Canada and Europe. In this country their presses are used by *Scribner's Magazine*, *McClure's*, *Harper's Weekly and Bazar*, *The Cosmopolitan*, *Munsey's*, *The Youth's Companion* and others.

E. KENYON & SON, KENYON'S MILLS, Kenyon, R. I.—Manufacture fancy cassimeres and overcoatings; dye. H. H. Schwietering & Co., selling agents, New York city.

MILES ALARM TILL Co., Providence, R. I.—Established 1859. Incorporated 1869. Manufacturers of Miles Alarm Tills.

DIXON GRANITE WORKS, Westerly, R. I., manufacturers of monumental and other work from granite of the finest quality and of the highest artistic character. Incorporated in 1893. The quarries are connected with the N. Y., N. H. & H. railroad by a spur track.

THE SMITH GRANITE COMPANY, Westerly, R. I.—This business was commenced in 1846 by Orlando Smith, and has grown to great magnitude. The company was organized in 1887, with a capital of \$100,000; the son of the founder, Orlando R. Smith, is president and general manager, with John P. Randall, secretary. They do a large business in monumental work and statuary of great excellence; also build mausoleums. The quarries are connected by a spur track with the line of the N. Y., N. H. and H. Railroad.

CHARLES R. MAKEPEACE & Co., architects and mill engineers, 429 to 431 Butler Exchange, Providence, R. I.

PROVIDENCE OIL WORKS, 11 Dorrance Wharf, Providence.—This business was begun in May, 1877, by Scott A. Smith and Charles H. Poland—Smith & Poland. Mr. Poland retired from the business in 1883. The manufactures are cylinder, machine, engine and spindle oils. Also S. & P. lubricating grease, zone-metal polish, "Swiss Belt Dressing," and anti-rust coating for machinery. A specialty is made of "Mecca Wool Oil," gear grease, axle grease, etc.

THE PROVIDENCE MACHINE COMPANY, 564 Eddy street, Providence, R. I.—Manufacturers of improved cotton-roving frames for long or short staple; improved worsted roving frames for fine yarns; also for carpet yarns. These extensive machine works had their origin in the commencement of the machine business by Thomas J. Hill, with Samuel Slater, Providence Machine Company, in 1834, in the "Steam Mill," Providence. Mr. Slater died April 21, 1835, leaving the business in Mr. Hill's hands, who increased it so much as to necessitate the building of extensive new works in 1845. In 1846 Mr. Hill, who had owned a two-fifths' interest with Mr. Slater's three-fifths', bought of Mr. Slater's successors their interest and became sole owner. In 1874 a company was organized under a Rhode Island charter, obtained in 1867, with Thomas

J. Hill, as president and treasurer; his son, Albert Hill, secretary, and George J. Hazard as manager and agent. Mr. Hazard retired in 1891. Mr. Albert Hill died in 1893. Thomas J. Hill, born March 4, 1805, died July 24, 1894. The capital of this company is \$350,000. About three hundred workmen are employed. Officers: William C. Peirce, president and treasurer; Thomas P. Davis, secretary.

GEORGE C. NIGHTINGALE & CO., 54 North Main street, Providence, R. I.—In 1832 Crawford Allen and George C. Nightingale—George C. Nightingale & Co.—bought of Mr. Wilkinson the "Brick Mill," at Putnam, Conn., and in 1854 built the stone mill now known as Nightingale Mills. In 1847 George C. Nightingale, with Milton S. Morse and Sullivan Dorr—M. S. Morse & Co.—built the Morse Mills at Putnam, Conn. In 1869 an incorporated company was formed with Milton S. Morse as president; Sullivan Dorr, treasurer, and George M. Morse, agent. In 1872 the Powhattan Mills were built by Messrs. Nightingale and Morse; Milton S. Morse was president; George C. Nightingale, treasurer; and George M. Morse, agent. Crawford Allen died April 22, 1872; Milton S. Morse died May 17, 1877; Sullivan Dorr died November 13, 1884; George C. Nightingale died November 7, 1892. These mills manufacture sheetings, shirtings, and twills; they have an aggregate of 47,214 spindles, and 1,066 looms, and use both steam and water-power. J. K. H. Nightingale is treasurer of each corporation.

THE GEORGE W. STAFFORD MANUFACTURING CO., Providence, R. I.—This company was begun by George W. Stafford, who removed to Providence from Lawrence, Mass., in 1881. The first business was the making of Jacquard machines, dobbies, and witches for fancy weaving. First started in a small way at the Builders' Iron Foundry, but in 1884 removed to Clifford street, where, in 1884, an incorporated company was organized. Soon removal was made to Point street. In May, 1889, large buildings on Harris avenue and Acorn street were occupied. Here, in addition to the former machines, they commenced the manufacture of looms, also the "Morton let-off." Officers: Gardner C. Sims, president; George W. Stafford, treasurer and general manager; Charles H. Poland, secretary. This company has recently been consolidated with the Crompton & Knowles Loom Works, of Worcester, Mass., and is conducted under their management.

NEW ENGLAND ELECTROLYTIC COPPER CO., 46 Blackstone avenue, Central Falls, R. I. J. C. McCoy, superintendent and general manager.

CROWN WORSTED MILLS.—Greaves & Hutchinson. James W. Greaves, William S. Hutchinson, proprietors. 43 Sabin street, Providence, R. I. Commenced 1896 to manufacture worsted yarns. Sixteen hundred spindles, and one set drawing. Sell direct.

Rhode Island has a national, and for some things even a world-wide, reputation, as an original and originating centre for industries. It was here that Samuel Slater commenced for America the cotton manufacture. Wilkinson made the slide-rest for lathes. It has been, from its very early history, the home of the jewelry and silverware industry. Then came wood-screw making; the modern steam-engine, by Corliss; the accurate tool-making machines of Brown & Sharpe; the Nicholson file-making machines, and the great industry established by William T. Nicholson; the sensitive Grinnell sprinkler, invented by Frederick Grinnell; and the Corliss spherical burglar-proof safe, by William Corliss.

By the United States census of 1890, there were in Rhode Island ninety-four cotton-goods mills, sixteen hosiery and knit goods, one hundred and eleven woolen, and twenty-eight worsted mills. Value of cotton product, \$27,310,499; hosiery and knit goods, \$2,516,664; woolen, \$9,884,945; worsted, \$22,319,684. Foundry and

machine, including architectural iron-works, \$11,290,370. Total of all industries, in 1890, \$142,500,625.

NEW ENGLAND STEAM BRICK COMPANY.—Works at Barrington and Nayatt, R. I. Office: Equitable Building, Custom House street, Providence, R. I. Manufacturers of sewer, building bricks, and a great variety in special forms. Annual capacity, fifty million. The bed of sand and clay owned, or controlled, by this company, is about two miles long and from one-half to three-quarters of a mile wide. Officers: William G. Titcomb, president; J. H. Collier, Jr., treasurer.

J. N. POLSEY & COMPANY, Bayley street, Pawtucket, R. I.—Manufacturers of packing boxes and cases. Capital employed, \$100,000. Lumber is used by this firm to the extent of four to five million feet per annum. This business was established in 1857. In 1877 John P. Hood was admitted to the firm; he largely increased the business. On the death of Mr. Polsey, in 1887, Mr. Hood, with L. I. Mathewson, bought the entire business. The present location was occupied in 1872; it has a frontage on the New York, New Haven and Hartford Railroad, with spur tracks. The business of this firm extends to all the eastern cities, and as far west as Chicago and St. Louis. The business is continued under the firm-name of J. N. Polsey & Company.

CHAPMAN GRANITE WORKS, Westerly, R. I.—Extensive granite quarries, with connecting tracks to the New York, New Haven and Hartford Railroad. Manufacture monumental work and statuary; the finest quality of granite for building and other purposes.

R. BLISS MANUFACTURING COMPANY, Pawtucket, R. I.—This company was organized in 1874. Capital, \$90,000. They are very extensive manufacturers in the following branches of wood and iron work: Hand and bench screws, cabinetmakers' and pianoforte makers' clamps, mallets, tool handles, etc. Also Wood's patent safety car platform gates, lawn tennis sets, patent improved architectural building blocks for children's use, tool chests, games, toys and novelties.

BERKLEY CO.—Mills at Ashton, R. I. Established in 1872. They manufacture fine cambrics, India lawns, nainsooks, etc. Forty-five thousand spindles, one thousand and fifty-two looms. Steam and water power. Capital, \$600,000. R. H. I. Goddard, treasurer; Sturges & Gammell, agents. Office, Providence, R. I.

GYMNASTIC APPARATUS.*

There are few industries that can be traced so directly to their source as the manufacture of gymnastic apparatus. It has grown directly under the eyes of the present generation. Previous to 1880, the manufacture of gymnastic apparatus did not exist, and such apparatus as was wanted was made under the direction of gymnastic directors. They planned, or got from such books as were published, an idea of what they wanted, and with the co-operation of sail-makers, carpenters, blacksmiths and machinists, got as near to their ideal as they could. In 1879, Dr. D. A. Sargent equipped the Hemenway Gymnasium at Harvard College, and introduced his system of gymnastic exercise. This was the first large gymnasium in this country, fitted with what might be called modern apparatus; it was made under his direction, at various shops in Cambridge. About this time many institutions were fitting gymnasiums, and introducing the Sargent system of physical exercises. In order to supply the apparatus for their equipment, the Doctor was obliged to personally

*By W. L. Coop.

supervise its manufacture. Thus, the industry grew under his care and oversight until 1883.

At this time, the Narragansett Machine Company, a new firm starting business in Providence, R. I., saw the crudities existing in the mechanical construction of gymnastic apparatus, and designed a machine principally for home use. It attracted the attention of gymnasium directors, and brought them some of the mechanical work on gymnasium equipments. Dr. Sargent learned of their work and saw that here was an opportunity to consolidate in the hands of one, the work that he was having done by several firms, and thus place it where it could be carried out with uniformity of design and singleness of purpose, that gymnasium equipments might be complete and harmonious in their appearance as well as properly built. Until 1886 the Narragansett Machine Company made all of Doctor Sargent's apparatus under contract. Afterwards, they purchased the patterns and good-will of the doctor, and retained him as an expert advisor. Thus, the business grew up in their hands under the supervision of one who is recognized as the best authority in the country on both gymnastics and gymnastic apparatus, and they were the legitimate successors of the first established manufacturer of apparatus.

Commencing in 1883 with a catalogue numbering scarce a dozen pages, their business has grown until now their catalogue of gymnastic apparatus only has one hundred and twenty pages, with about three hundred illustrations. The business was started in a hired room, 50 x 100. It now occupies a plant where everything that is necessary for the production of all that goes to equip a gymnasium is provided, with ample facilities for storage and shipping. Formerly an order had to be given six months or a year before the apparatus could be shipped. Now it can be ordered by telegraph, and shipped the next day.

They have also added the manufacture of gymnasium-lockers and bowling-alleys. Both of these were formerly made in different designs by local carpenters with varying degrees of satisfaction to the purchasers. Now they are of standard design and quality.

American gymnastic apparatus is admitted to be the best in the world, and the Narragansett Machine Company have shipped apparatus to all civilized countries, gymnasiums fitted by them being found in South America, Australia, China, Japan, Turkey, France and England.

THE SPARHAWK SANITARIUM.—Among the health-giving resorts of Burlington, Vermont, the Sanitarium is the largest and best known.

Being erected in 1887, by G. E. Sparhawk, M.D., with a capacity for twelve patients, its growth has been such as to demand an increase in accommodations for *thirty* patients. It is a three-story structure, built of brick, with brown-stone trimmings, and heated by steam, with open fire-places for mild weather. The rooms are large and airy, well lighted and ventilated, and comfortably furnished. It is aimed to make this as much a "home" as possible and to avoid all hospital appearances. It is the only institution in the state under homeopathic management; also contains the *only* bath establishment where are given Turkish, Electro-vapor, Russian and other baths, with or without massage, as indicated. Both medical and surgical cases are admitted, special attention being given to gynecological and rectal diseases. Contagious diseases, incurables and persons suffering with dementia are excluded. A nurses' training school in connection with the Sanitarium furnishes skilled attendants. Dr. Sparhawk is assisted in the management of the Sanitarium by his son, Dr. Samuel Sparhawk.

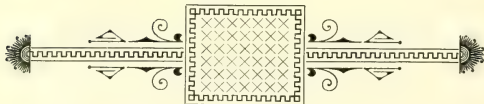
LAKE VIEW SANTARIUM.—This is the first private institution of any kind

organized in Vermont. It was opened for the reception of patients October 1st, 1882. It is especially adapted for the care and treatment of nervous and mild mental diseases. Located about a mile north of the centre of the city of Burlington, on the lake-shore, having the finest location of any private institution in New England, the view of lake and mountains is unsurpassed. The building is very substantial, built of stone and brick, three stories and basement. Accommodations for twelve patients and the necessary nurses, etc., is afforded, with modern improvements. The so-called "family plan" is adopted during treatment, that is, patients are members of one family, so far as able. Violent or noisy or much deranged cases not received, which makes the classification very desirable. The patronage is largely from the larger cities, and mostly from wealthy, well-to-do people. The rate of improvements and recoveries is high, and the reputation of the place is of the finest.

HON. W. W. THOMAS, Jr., was appointed minister to Sweden in the spring of 1897, and this is believed to be the first instance in the diplomatic history of our country that an American has been appointed thrice minister to the same foreign land.

GEN. WILLIAM F. DRAPER was appointed Ambassador Extraordinary and Plenipotentiary of the United States to Italy, April 1st, 1897.

HON. WILLIAM S. STEVENS, of Dover, N. H., died April 15th, 1897.





Thomas Durfee

CHAPTER CLXXIX.

BIOGRAPHICAL.

THOMAS DURFEE.

THOMAS DURFEE, late chief justice of the Supreme Court of Rhode Island, is descended from Thomas Durfee, who came from England about the middle of the seventeenth century, and settled on the island of Rhode Island while the Warwick charter of 1643 was in force. His grandfather, Thomas Durfee, was chief justice of the Court of Common Pleas, from Newport county, from 1820 to 1829. His father, Job Durfee, was born in Tiverton, Rhode Island, September 20, 1796, and graduated at Brown University in 1813. He studied law with his father, and was admitted to the bar in 1817. He was a representative from 1816 to 1820, member of Congress from 1821 to 1825, and again a representative in 1826, serving until 1829, and the last two years as speaker. He was again a member of the Assembly in 1833, and in that year was made associate justice of the Supreme Court, and in June, 1835, succeeded Judge Samuel Eddy as chief justice, occupying that position until his death. He married Judith, daughter of Simeon Borden, and died July 20, 1847.

Chief Justice Thomas Durfee, son of Job and Judith (Borden) Durfee, was born in Tiverton, February 6, 1826. After attending the district school, and studying for a time at home, under the care of his parents, he went, at the age of fourteen, to East Greenwich, and became a pupil in the private school of Rev. James Richardson, in that town. In 1846 he graduated at Brown University, and soon after entered the office of Charles F. Tillinghast and Charles S. Bradley, as a student at law. He was admitted to the bar in October, 1848, and at once began practice in Providence. After the adoption of the Constitution the General Assembly conferred, in January, 1845, upon the Supreme Court, the power of appointing a reporter of decisions, and in the spring of that year Joseph K. Angell was appointed, but few of his reports secured a permanent record. In October, 1849, Judge Durfee was appointed reporter, and held the office four years, publishing the larger part of the first two volumes of Rhode Island Reports. When Samuel Ames was made chief justice, in 1856, he assumed also the duties of reporter, as did also Chief Justice Charles S. Bradley.

It was soon found that Judge Durfee inherited the traits of mind and temperament which distinguish the judicial character. Inherited occupations come naturally enough as the necessary results of opportunity, and not of any especial adaptation to the inherited work, and it is by no means uncommon for a trade like that of a watchmaker, or carpenter, or ropemaker to descend from father to son through many generations. The occupation of a seat on the bench by members of several generations of a family indicates on the other hand the possession of gifts which have

followed the laws of heredity, and become, sooner or later, recognized by the community. In 1854, at the age of twenty-eight, Judge Durfee was made presiding justice in the Magistrates' Court, of Providence, which office he held, except for one year, when he was associate, until 1860, when he retired. In 1863 he was a representative, and though it was his first year in the House of Representatives, he was chosen speaker. In 1864 he was chairman of the Rhode Island delegation to the National Republican Convention in Baltimore, which nominated Abraham Lincoln for a second term. In 1865 he was a member of the Senate, and in June of that year was chosen associate justice of the Supreme Court. On the 28th of January, 1875, he was made chief justice to succeed Chief Justice George A. Brayton, and entered on the duties of his office on the 6th of February. On the 14th of March, 1891, he retired after twenty-five years' service on the bench, nine years as associate and sixteen years as chief justice.

As an alumnus of Brown University he has always felt a deep interest in its welfare and work, and has been a recipient of its honors. In 1875, he received the degree of Doctor of Laws, and as a member of the college corporation, trustee, chancellor and fellow, his counsel and influence have been eminently beneficial to the institution. His interest in the cause of education has extended beyond his Alma Mater, and for some years he has served as president of the Providence Public Library.

Notwithstanding the arduous labors which his services on the bench imposed on him, he has found time to contribute, not only to the literature of his profession, but to general literature as well. In 1857 he published a work on the Law of Highways; in 1872 he published a volume of verse entitled, "The Village Picnic and Other Poems;" in 1883 a paper entitled, "Gleanings from the Judicial History of Rhode Island," which appeared as No. 18 of Rhode Island Historical tracts edited by Sidney Rider, and in 1884, "Some Thoughts on the Constitution of Rhode Island." In December, 1877, he delivered an oration at the dedication of the State House in Providence; in June 1886, an oration on the two hundred and fiftieth anniversary of the Planting of Providence, and in June, 1894, an oration at the dedication of the statute of Ebenezer Knight Dexter, who distinguished himself as a public benefactor in giving to the city (then the town) of Providence, for the benefit of the poor, forty acres of land, on which the Dexter Asylum now stands with other property, and also a tract of land in the west part of the city for a training field.

Judge Durfee married October 29, 1857, Sarah J., daughter of John and Sarah (Tiffany) Slater, and has one son, Samuel Slater Durfee, a graduate of Brown, and now in the practice of law in Providence, who married Eliza, daughter of William B. Weeden.

ZACHARIAH ALLEN.

ZACHARIAH ALLEN, son of Zachariah and Anne Crawford Allen, was born in Providence, R. I., September 15, 1795. His father was a large ship-owner, extensively engaged in commerce with the West Indies and other countries, and left at his death a large estate. He engaged also in manufactures, and was the first printer of calicoes in the United States, importing India cottons for the supply of his print works, employing as superintendent, Hermann Vandeusen, from Mulhausen.

The mother of Mr. Allen was the daughter of Joseph and Susanne (Bernon) Crawford. He was a descendant of the Crawfords who were among the early settlers



Leicester Allen

of Providence, and owned two "plantations" in what is now a central part of that city, extending from Hope street to Crawford street bridge.

The grandmother of Mr. Allen, Susanne Bernon, was descended from Gabriel Bernon, a French Huguenot, who came to Boston in 1688, and purchased a tract of twenty-five hundred acres of land in Oxford, Mass. He was the principal founder of that town at the time of the first settlement, before its incorporation in 1693. He paid the passage of more than forty Huguenots who came over with him, and settled them under the care of their minister, Daniel Bondet, and established a flourishing community. Mr. Bernon introduced a variety of industries and assisted in the erection of a fort for protection against the incursions of the Indians. In 1696, at the time of the massacre of Mr. Johnson and his three children, the French residents fled to places of refuge near the coast, and for some years little except the fort was left to tell of the ruined homes. Mr. Bernon resided in Boston, but removed to Newport about 1698, where he became a leader of the Episcopalians of that day. The establishment of Trinity church, Newport, St. Paul's, Narragansett, and St. John's, Providence (the first three Episcopal churches in Rhode Island), "was due to his persevering piety and untiring zeal."

Zachariah Allen, the subject of this sketch, had two brothers, Philip and Crawford Allen, the former of whom was governor of Rhode Island from 1851 to 1853. By the death of his father, April, 1801, Mr. Allen was left, at the age of five years, to the sole protection of his mother, who sought the best possible education for her son. He was first sent to a private school at Medford, and at eleven years of age to the "Phillips Academy," Exeter. At the latter institution he fitted for college, and, entering Brown University in 1809, graduated in 1813. His mother died in 1808. She was a woman of great dignity of character, intelligent, beautiful and intellectual, and the love with which she inspired her son retained its intensity to the day of his death. She commended him to the tender care of an elder sister.

While studying faithfully at college he did not confine himself to the regular curriculum, but indulged the taste for science and natural philosophy, which he had cultivated assiduously during his boyhood. At his graduation he stood fifth in a class of twenty-five. After leaving college he studied for a time in the medical school of Brown University, and then entered the law office of James Burrill. During the War of 1812 he acted in the service of the Committee for Defense of Providence as secretary, being too young to enter the army. He continued in the practice of law until 1818, when he went to Washington, and afterward made an extended tour of the West. He was deeply impressed with the resources of our country, the promise of its future growth and the necessity of developing its industries. He built a mill at Allendale, near Providence, and engaged with success in manufacturing. He treated his business as a science, demanding persistent investigation and study, and with this object in mind he passed the year 1825 in Europe. He published in 1829 "The Science of Mechanics," containing tables and calculations of general practical utility, which served as a text book for two generations of Americans. In 1832 he published the "Practical Tourist," sketches of scenery and the arts in Great Britain, France and Holland, in two volumes. After a second visit to Europe, in 1852, he published the "Philosophy of the Mechanics of Nature," and later historical sketches of the improvements in "The Transmission of Motive Power," "The Rhode Island System of Civil and Religious Liberty," in 1876, and "The First Settlers of New England and the Native Indians," in 1880. Such a broad range of subjects and the facility with which he treated them showed high literary attainments as well as profound scientific knowledge.

In the above pamphlets, of 1876 and 1880 (papers originally read before the Historical Society), Mr. Allen expressed with deep feeling his sympathy for the aborigines, under the injustice and sufferings they endured. Copies sent to William Russell Bartlet, Esq., Indian Commissioner for Canada, were read and interpreted to the Indians, at a council of the Ojibways and Potawatommies, and called forth a grateful response from the remnants of each of those once powerful tribes. They say, "We heartily express our pleasure at finding the Red men have such a good and faithful friend as Mr. Allen. We all, both men, women and children, shake hands in our hearts with Mr. Allen, and some of us, with our interpreter, have signed our names and Totems." Here follow the names and Totems of thirty two chiefs and young men of those tribes.

Among the scientific problems to which he gave attention, was the power which might be derived from the "Falls of Niagara." In 1844 he was the first to make a systematic measurement of the Niagara river, showing the quantity of water flowing over the falls, to be twenty-two million, four hundred and forty thousand cubic feet, or seven hundred and one thousand, two hundred and fifty tons per minute. The actual horse-power to be four million, five hundred and thirty-three thousand, three hundred and thirty-four; and the horse-power from Niagara to the sea, twenty-four millions. He estimated Lake Erie to be three hundred and thirty-one feet higher than Lake Ontario, and the latter lake two hundred and thirty-four feet above the ocean.

This account was published in Silliman's "Journal," in 1844. He was also the inventor of the Automatic Cut-off, and made the first practical application of this very important improvement in the steam engine, and patented it as early as 1834. He also changed the old system of slowly transmitting power by discarding massive shafts with pulleys and cog-wheels of rough and heavy castings, substituting light shafts with balanced pulleys, driven at high speed, thus reducing the weight and affording ampler power.

Mr. Allen's power of generalization was remarkable. His inventions seized on a "basic principle," and were made a success by the simplest means. His theories sprang from simple truths, and, though far-reaching in their scope, sought no support except through admitted principles or established facts.

His theory of "Solar Light, Heat and Gravitation" was published in 1879 by Messers. Appleton & Co. His object in writing this book was to prove that electricity is the unique motive power of the universe, and the exciting cause of solar light, heat and gravitation. He writes: "Mechanical philosophy, in tracing out the original source of the movements of all matter, in accordance with the primary law of the incapability of matter to move itself, points with uplifted finger to an immaterial First Cause, and affirms, with the Psalmist, 'The heavens declare the glory of God and the firmament sheweth his handy-work.' (P. 3). He illustrated the principle of his theory by the 'Holtz Electric Machine,' which excites a powerful electric current by the movement of one glass plate revolving opposite to another, without contact, and with a space of air intervening between them, as between the earth and the sun."

"The mechanical force of waterfalls, of the winds and waves of the sea, and animal motive power may all be converted into light and heat by means of the magneto-electric machines, such as are used in modern light-houses to light up dark seas and headlands with the splendor of sunshine. The mechanical force of Niagara would suffice to illumine all the great cities of the world. Reasoning from terrestrial to celestial mechanics, how indescribable must be the magnificence of that light-house

in the heavens, the result of the combined movements of more than one hundred and fifty electro-magnetic planets revolving around the central orb of the solar system. The orbital revolutions of the planetary systems transmit vibrations, on a sublime scale, through the electric ether which pervades infinite space; the axial rotations excite continuous currents about every planet and molecule. These modified and combined produce all the phenomena of planetary and molecular movements and of universal gravitation." (P. 88)

"As long as these mighty planets continue to revolve, so long will the sun continue to shine. The question of the source of Solar Light and Heat is therefore resolved, simply, into that of the source of Natural Motive Power—namely, the axial rotation and orbital revolution of the heavenly bodies." (P. 54).

"The process of crystallization—all life—the growth of germs, of plants, of forests, and the muscular and nervous action of all living bodies, is dependent on electric excitation." (Ch. 24.)

"The cessation of the continuity of this electric current is death." (Ch. 25.)

Dr. Henry Raymond Rogers, of Dunkirk, New York, in August, 1881, read a paper entitled "the Great Primordial Force" before the A. A. A. S., in Cincinnati, an admirable digest of Mr. Allen's theory.

Mr. Allen did not confine himself to the pursuit of business, science or literature. It was difficult, as was said by one of his eulogists, to introduce a subject on which he could not shed light and information. The fire department, the water-works and the public schools of Providence attest his public spirit. He was a firm upholder of civil government; and in the great contests against law and order, which have marked Rhode Island history—the Providence riots of 1824, and 1831, and the Dorr Rebellion of 1842, he showed great physical and moral courage.

He was the recognized originator of the system of mutual fire insurance adopted by the great industrial establishments of the New England and other states. He never sought office, and never accepted it, unless with the distinct aim of benefiting the public. Whatever office he was willing to accept, his fellow-citizens were ready and glad to bestow on him.

He was a trustee of Brown University from 1826 until his death, and received the honorary degree of Doctor of Laws from his Alma Mater in 1851. He was one of the founders of the Providence Athenæum, one of the trustees of the Butler Insane Hospital, founded in 1845, and also a trustee of the Public Library. He was a member of the Rhode Island Historical Society from 1822, and served as vice-president and president, holding the latter office at the time of his death.

Mr. Allen was a member of St. John's Episcopal Church, Providence, founded by his ancestor, Gabriel Bernon. His religious convictions were deep, his charity broad, his sympathies tender, genuine and practical. He married, in 1817, Eliza Harriet, daughter of Welcome Arnold, a distinguished merchant of Providence. She died in 1873. He survived her until the evening of the 17th of March, 1882, when, quietly, without premonition and without pain, he entered into the rest of Paradise.

CHARLES F. TILLINGHAST.

CHARLES FOSTER TILLINGHAST, class of 1814, died at his residence in Providence, August 3, 1864, aged 67 years, one month and fifteen days. He was descended from one of the oldest families in Providence; his ancestor, Pardon Tillinghast, an elder in the Baptist church, having been admitted as a proprietor of the town, January 19, 1646. He was the son of Stephen and Theodosia (Foster) Tillinghast, and was born in New York, June 18, 1797, during the temporary residence of his parents in that city. His grandfather on his father's side was Gov. Stephen Hopkins, signer of the Declaration of Independence, and on his mother's side was Theodore Foster, one of the earliest senators from Rhode Island after the adoption of the National Constitution. Both his father and maternal grandfather were graduates of the University, the former in 1788 and the latter in 1770. He was brought to Providence in very early infancy, and in the schools of the town received his preparatory training. After leaving college he studied law in the office of Hon. Samuel W. Bridgham (B. U., 1794) of Providence, and on being admitted to the bar in October, 1816, commenced the practice of his profession in the village of Chepachet. He, however, returned to Providence in July, 1817, and entered into partnership with his instructor, Mr. Bridgham, with whom he continued till the spring of 1823, when he commenced practice by himself. In 1842 he received into partnership Mr. Charles S. Bradley, who remained with him till 1858, and since that time he has been associated with his son, Mr. James Tillinghast. His life was devoted in a remarkable degree to the assiduous practice of his profession. Few of his companions at the bar equalled, and none surpassed him in professional industry, for the endurance of which he possessed unusual physical as well as intellectual capacities. Though he seldom appeared in court as an advocate, his business was very extensive, and in his character as counsellor he was constantly called to examine and give opinions upon questions of practical law, many of which were adjusted by his agency, or if brought to litigation were argued in court by other lawyers whom he employed for the purpose.

He was largely conversant with the details of the law of real-estate, of conveyances and probate, and especially with the whole system of private trusts, real and personal. In a very large number of such trusts he was a participant, many of them of such a nature as indicated the high confidence reposed in his integrity and wisdom by all classes of his fellow-citizens. He always shunned public station, and was wholly indifferent to political promotion. In 1843 he was induced to accept an election from the city of Providence to the Convention for framing the present Constitution of Rhode Island, and after that Constitution was adopted he was for a single year a representative from Providence in the General Assembly, by which he was appointed one of a committee to superintend the publication of the new digest of the laws; and this is the whole extent of his connection with political life. In religion he was a decided and conscientious Unitarian, though he never made any formal profession of his faith. He was one of the founders of the Westminster Congregational Church in Providence, and was a regular attendant upon its worship. He was, at the time of his death, with a single exception, the oldest member of the Providence County Bar, and his character was held alike by his brethren and the whole community in the highest respect as one of singular purity and unblemished integrity.



Charles F. Willingham.



Lyman B. Goff.

He married May 15, 1822, Lusanna Richmond, daughter of William Richmond, of Providence, whose family came from Little Compton, and, like the Tillinghasts, were among the earliest settlers of Rhode Island. Her death preceded that of her husband. Of this marriage four children—three sons and a daughter—were born, of whom only one son and the daughter survived him.

LYMAN BULLOCK GOFF.

AMONG the many manufacturers who have given to the state of Rhode Island a high position in the industrial world, none have surpassed the subject of this sketch in those qualities of character and mind which are essential to the success of business men. Mr. Goff is the son of Darius and Harriet (Lee) Goff, and was born in Rehoboth, Mass., October 19, 1841. Israel Goff, of Rehoboth, who served in the Continental Army in the War of the Revolution, was a member of his family, and his early ancestors were among the settlers of that town in colonial days. His father removed to Pawtucket in 1847, when he was six years of age, and in the public schools of that town, including grammar and high schools, he received his early education. He graduated at Brown University in 1862, and at once began a business career in the worsted and cotton manufacturing establishment of D. Goff & Son, of which his father and brother were members. In 1872, he was admitted to the firm, and in 1880 was made treasurer of the Union Wadding Company, of which his father was president. After the death of his father, he succeeded him as president, and still holds that position.

His activity and usefulness have not been confined to his adopted town. He is president of the Excelsior Building Company of New York, and is largely interested in manufacturing establishments in other parts of Rhode Island and in Canada, and the southern states of our Union. His good judgment and conservative methods have been sought in the management of various institutions, and he is now serving as a director in one or more banks in Pawtucket and Providence, and is vice-president of the Pawtucket Street Railway. His enterprise has led him to invest more or less capital in other electric railways, the successful prosecution of which enterprise he early foresaw.

His large and varied interests have never caused him to forget the welfare of Pawtucket, and he is always ready to aid any movement calculated to promote its prosperity and growth. His public spirit induced him to accept the presidency of the Pawtucket Business Men's Association, to which he has been three times chosen, and to his efforts much that that association has accomplished has been due. He is also a member of the Hope and Athletic clubs of Providence, and of the Union League and Athletic clubs of New York. Though in politics an earnest Republican, believing that the protective policy of the Republican party is best calculated to strengthen and invigorate the material interests of the country, he prefers that others than himself should engage in party warfare and secure party honors. Mr. Goff married, December 14, 1864, Almira Thornton, and has two children, Lyman T. and Elizabeth Lee.

SETH PADELFORD.

THERE is doubtless much that is true in the doctrine of heredity. The men who emigrated to New England in the early part of the seventeenth century must have possessed courage and a spirit of enterprise to enable them to meet the hardships of a life in the wilderness. They were not by any means all seeking a freedom of worship denied them at home. They were many of them picked men, dissatisfied with their restricted fields of labor at home, and conscious of their power in broader fields to raise themselves above the level on which the lives of their fathers had necessarily been lived. The traits of character possessed by them, and intensified, as all traits are, by their exercise, could not fail in the natural order of things to be transmitted to their descendants. The operation of this law of heredity has been rarely better illustrated than in the family of which the subject of this sketch was a conspicuous member.

In 1628 Jonathan Padelford was born in England, and when a young man came to New England and settled in Sudbury, Mass., where he married, in 1652, Mary Blandford. He afterwards removed to Cambridge, where he died, having had four sons and one daughter. Jonathan Padelford, his second son, born in 1656, removed to Braintree, Mass., where he married Hannah Flint. Another Jonathan, son of the last, born in 1679, removed to Taunton, Mass., where he died in 1747. By his wife, Hannah, he had six sons and four daughters. His fourth son, John, born in 1720, died in 1758. Seth Padelford, one of his sons, born in 1751, graduated at Yale in 1770, practiced law in Hardwick, Mass., and Taunton, was appointed county attorney of Bristol county in 1776, county treasurer in 1783, and judge of probate in 1794, holding the last office until his death, January 7, 1810. John Padelford, a brother of Seth, born in 1748, graduated at Yale, and after preparing himself for the medical profession, became a skillful practitioner, and entering the Revolutionary navy as surgeon, was taken prisoner, and died at Eustatia of yellow fever. His son, John, of Taunton, married Mary Heath, and was the father of Seth Padelford, of whom these words are written.

Seth Padelford, son of John and Mary (Heath) Padelford, was born in Taunton, October 3, 1807. His early education was limited to the public schools, and, when a young man, he went to Providence, R. I., and entered a grocery store, as salesman and clerk. After some years of faithful service in the interest of others, he entered into business on his own account. He brought to the management of his own enterprise those traits of character, which he had inherited from an energetic and persistent ancestry, and, after forty years of an active business life, retired at the age of fifty-six, with a competent fortune.

During his business career, in all his dealings, he had shown himself to be a sagacious, prudent and honorable man, in whom his fellow-citizens could not fail to place, under all circumstances, the highest confidence. He proved himself to be such a man as was needed in the service of the public. It is not necessary for such a man to seek honors. They come to him as naturally as filial love, as the happiness of home. Popular judgment is unerring when it is permitted to select its own recipients of office and honor. Only those prove unfaithful, who push themselves into notice, and set themselves up as candidates for public positions, for the performance of whose duties they are manifestly unfit. At the age of thirty, he was chosen a member of the common council of Providence, holding his seat until 1841, and again



John L. Linsley -

in 1851 and 1852 he was a member of the same body. At various times he was a member of the school board, serving all together fifteen years, and proving himself a devoted friend of the cause of education. He also served as one of the commissioners of the sinking fund four years, and in 1877 was appointed a member of the commission for building the city hall, an appointment which, however, he declined. In 1852 and 1853 he was a member of the Lower House of the General Assembly, and in 1860 was the Republican candidate for governor of Rhode Island. In 1863 he was chosen lieutenant-governor, and held office until 1865. In 1869 he was chosen governor, and continued in office by repeated elections until 1873, when he declined further service.

In the administration of the duties of his various offices he never failed to render every possible aid to the cause of education, and to every measure calculated to improve and make more effective the public school system. In permanently establishing the state normal school in 1871 he was especially earnest and active, and as chairman *ex officio* of its board of trustees during the remainder of his gubernatorial term he gave an intelligent supervision of its affairs. Nor was his interest in education confined to the public schools. He was a generous contributor to the funds of Brown University, of Antioch College in Ohio, and of the Providence Athenæum. To the last institution he gave after his return from Europe in 1858 twenty-three volumes upon Italian art, and in the same year he was chosen one of its directors. In 1857 he was chosen a member of the Rhode Island Historical Society, and always felt a deep interest in the objects and purposes of that organization. Indeed it would be difficult to find any association or plan to promote and uplift the intellectual wants of his fellow-citizens that failed to receive his sympathy and aid. He provided by his will that in certain contingencies the bulk of his estate shall be given for the foundation of a free public library to be called the Padelford Library.

In matters of business, aside from those under his immediate and personal control, his aid and counsel were freely sought and given. He was a director in the Blackstone Canal Bank from 1847 to 1869, and president of the National Bank of North America from 1861 to the time of his death. He was vice-president of the Rhode Island Bible Society from 1861 to 1878, a director of the Swan Point Cemetery Corporation from 1858 to 1875 and its president after 1860. He was president during the war of the Rhode Island Association for the benefit of the freedmen, and a member of the Auditing Committee in 1877 and 1878 of the Rhode Island Hospital, of which institution while governor he was *ex officio* a trustee. He was also an officer in the Rhode Island Society for the Encouragement of Domestic Industry, and of the Rhode Island Society for the Prevention of Cruelty to Animals.

The political associations of Mr. Padelford were with the Republican Party from its first organization. After the repeal of the Missouri Compromise in 1850, the New England Emigrant Aid Society was organized for the purpose of saving Kansas and Nebraska from slavery, and he was made one of its vice-presidents. Though never a political prohibitionist he was a firm supporter of temperance reform, and by every means outside of politics sought to advance it.

His religious associations were with the Unitarian denomination, and he was one of the original members and founders of the Westminster Congregational Church and Society in 1828. He was vice-president of the American Unitarian Association from 1865 to 1870; vice-president of the Unitarian National Conference from 1867 to 1869, and president from 1869 to 1874. He was also a member of the Executive Committee of the Westminster Church in 1842 and 1843, its treasurer in 1831 and 1832, and chairman from 1860 to 1867.

But the interests of Mr. Padelford were broader than even the above references would suggest. He was a contributor to the funds of the Providence Aid Society; one of the founders of the Benefit Street Ministry-at-Large, and at various times its trustee, secretary, vice-president and president; an original contributor to the erection of the Mariners' Bethel Chapel of the Seamen's Friend's Society, of which he was president, and while frequently giving during his life to local charities, he made provision in his will for the support of some of them, by bequests, of a sixth part of his estate after the death of his immediate heirs.

Mr. Padelford married, first, October 19, 1834, Louisa Rhodes, of Pawtucket, and second, October 1, 1845, Mary B. Peirce. He died at his home, August 26, 1878, leaving a widow and two children of his first wife. At his funeral, held on the 30th of August, Rev. Dr. Samuel Osgood, of New York, and Rev. Augustus Woodbury and Rev. Edwin M. Stoue, of Providence, officiated. Mr. Woodbury was his pastor, Mr. Osgood his former pastor, and Mr. Stone was the pastor of the other Unitarian Society in Providence. There can be no more fitting close of this sketch than the words of Dr. Osgood and Mr. Woodbury. Mr. Osgood said: "For more than forty years he served the public, and served with sagacity, integrity and vigor. His record is unspotted in all his career, from his first term on the School Committee in 1837, to his four years in the governor's chair, which he so lately resigned. In these years he has done good service to the city, the state, and the nation; stood up earnestly for education, honesty, liberty, patriotism, religion; and he stands among the good governors who have saved the unity and the credit of the country, and kept us from disunion, with its endless harvest of discord, intrigue and destruction." Mr. Woodbury said, "He has finished his course. Now, having reached the limit of his three-score years and ten, he has laid down the burden of duty and of earthly care, and has entered into a well-earned rest, the rest that remaineth for the people of God."

GEORGE EDWIN NEWELL.

PROMINENTLY identified with the educational and industrial interests of Pawtucket was the late George Edwin Newell. Mr. Newell traced his ancestry in America to Abraham Newell, who came from England, and settled in Roxbury, Mass., in 1634. The paternal line of the family in this country is as follows: Abraham, Jacob, Jacob second, Joseph, Jason, John and George Edwin. This is a worthy ancestry, and some of the most prominent men of the country have descended from it. The gifted and eloquent Dr. Jonathan Maxcy, who was the second president of Brown University, was of this family.

George E. Newell was born in Cumberland, R. I., September 19, 1830. His father, John Newell, was a farmer and mill-owner at Diamond Hill Plains, and a leading and honored citizen. Early in life, it became his earnest determination to secure as thorough an education as his limited means would permit, and, at the age of sixteen, he began clerking in a store at Diamond Hill Plains, where he earned sufficient money to attend Professor Quimby's Institute at North Scituate. In 1848 and 1849, he taught school at Cumberland Hill; 1850 finds him at the Merrimack Normal Institute, at Reed's Ferry, N. H.; 1851, he taught school very successfully in Smithfield. His reputation as a teacher began to be noticed, and he was sought for by the trustees of various schools before the previous engagements were completed. In the fall of 1851 he entered Brown University, taking a special course in mathematics, chemistry and didactics. During the following winter, we again find



Geo. E. Sewell

him at his chosen occupation, teaching, with marked success, in the Kings Street district, Franklin, Mass. He intended soon after to return to Brown University, but, before the close of the term, the trustees at Franklin Centre engaged him for the winter of 1852 and 1853, his great success as a teacher having attracted the attention of educators throughout this locality.

His services commanded a much higher salary than other teachers, and he was persistently urged to accept positions of responsibility. Although having become an acknowledged authority in relation to teachers and teaching, he entered into partnership with his brother-in-law, J. W. Tingley, and for one year abandoned teaching, and engaged in business in a variety store in Central Falls. In September, 1854, however, he again entered Brown University, and finished his course in 1856. He then taught the Union High School at Central Falls, where success again crowned his efforts, and he was generally acknowledged, and is now remembered as one of the most successful teachers Central Falls or this locality had ever had. His close attention to teaching, and his studious habits impaired his health, and in 1857 he was compelled to abandon his chosen profession, and went into business with his uncle, Smith Grant, in the grocery business at Pawtucket. At this time they purchased the wharf property of S. Budlong, in May, 1857, with a view of engaging in the wholesale trade in flour and grain, but it all soon merged into a lumber and coal traffic, and the grocery business was disposed of in 1859. This firm at once began a prosperous career, and built up a large and increasing business. In July, 1885, Mr. Grant died and Mr. Newell purchased his interest of the widow, and became sole proprietor. Mr. Newell was ever a progressive man, whether in matters of education or business. He revolutionized the handling of coal by his inventive skill, being the first to apply the dumping gear to heavy carts, and obtained the patent for the same. It was by his direction also that the discharging of coal from barges by the self-lifting steam-shovel was first introduced and successfully operated. In 1890 the Newell Coal and Lumber Company was incorporated, of which Mr. Newell was president, and Edward S. Bowen, treasurer. May 16, 1894, the entire property of the company was destroyed by fire, but, inside of a few months, new buildings and improved methods had been constructed. Here Mr. Newell's indomitable energy and great will-power exhibited itself in a marked degree. All matters tending to advance the interests of Pawtucket or Central Falls found in Mr. Newell an earnest advocate. For thirty-six years he had been a director of the Slater National Bank, and was one of the original members of the Pawtucket Business Men's Association. His superior quality of intelligence and business capacity was recognized by his fellow-citizens, and he represented the old town of North Providence in the General Assembly, in the town council and school committee. He was a prime mover and constant champion of the improvement of Pawtucket river, and was one of the commission that built the new Washington draw-bridge at the mouth of the river at Indian Point.

Mr. Newell was also deeply interested in religious matters, being a consistent and devoted member of the First Baptist Church of Pawtucket, and of the Young Men's Christian Association. He was also one of the promoters of the Woodlawn Baptist Sunday-school, from which sprang the present flourishing Woodlawn Baptist Church.

August 3, 1857, Mr. Newell united in marriage with Miss Ermina A. Pinkham, of Stanstead, Quebec, and their family consists of six children, namely, Lillian (Mrs. B. D. Brown, of New York), Carrie (Mrs. George E. Nichols), Ada, Edwin, Lucius, and Arthur. Mr. Newell died May 12, 1896.

George E. Newell was essentially a self-made man. Early in life he learned that the way to success was by no royal road, but was open to strong hearts and willing hands. He gained nothing by mere luck, but everything by perseverance and well-digested plans, and the intelligent application of his energies to the end in view. He was liberal-minded, broad in his views, and had the confidence and esteem of the people in a remarkable degree.

ELISHA HARRIS.

ONE of the most eminent among the pioneers of the cotton-manufacturing industry in Rhode Island, was Elisha Harris, of Coventry. He was the eldest son of Joseph and Catherine Greene Harris, of Cranston and was a lineal descendant, not only of Roger Williams, but also of William Harris, the companion of Williams in the settlement of the state. He was born September 8, 1791, and resided on the ancestral farm until he was about twenty years of age. He then obtained a situation in the counting-room of the Roger Williams Company, then owning the mill at Phoenix, which is now under the management of Goddard Brothers. The original mill was destroyed by fire; and the one now standing owes its name to the fact that it arose from the ashes of the original Roger Williams Mill.

Young Harris remained with the Roger Williams Company some eight years, and then leased a small mill in the village of Fiskville, and went into business on his own account. Meeting with an encouraging degree of success, he acquired a substantial property, covering several acres, and including a reliable water privilege lying half a mile below, and just above the Phoenix mill. Here he established the business and village which has continued to bear his name.

The mill originally erected, though insignificant in comparison with mills of later date, was a very respectable one for the times. With wise and prudent provision, shade trees were set out along the highway soon after the mill was built; so that the village has always been recognized as one of the pleasantest in the state. The original mill was enlarged several times, but a much more important advance was made in 1850, when a larger and handsomer one was erected below, and on the other side of the highway. The two mills and machine shop erected for and formerly occupied by the Lanphear Machine Company, have since comprised the manufacturing property of the Harris Manufacturing Company, a corporation composed of the descendants of the original founder and proprietor.

Attention to details was one of the marked characteristics of Mr. Harris. He studied and planned all the minutiae of engineering, excavation and construction, and made himself scientifically and practically familiar with the various kinds of machinery which it was necessary for him to use. Never assuming to be very apt or ready at invention, he knew the importance of thorough, persistent, complete execution. No matter how slight or how difficult the problem might be, he never abandoned it till it was solved. It appeared to be no labor for him to sit at his desk in the evening, hour after hour and night after night absorbed in mathematical calculations or the adjustment of accounts. Whether he was to derive any benefit from this intense application, or whether he was engaged in some work of a fiduciary or charitable character, he adhered to it with equal fidelity. He was a thorough accountant, wary and watchful in all his calculations, particularly in those relating to mill expenses and estimates, and kept a complete set of books by



Eliza Harris



Henry Howard

double entry, for family expenditure, distinct from those required in his business. Uniting unusual activity and tenacity of mind with bodily vigor and elasticity, he never seemed either to require or desire any relaxation. The time which others gave to recreation, he gave to other duties, constantly serving as guardian, executor, administrator, trustee, and the like, in cases where there was no emolument, or none commensurate with the labor to be performed.

Known to be a clear reasoner and of impartial judgment, his counsels were in frequent request at financial boards and on prudential committees. At his death he had been for many years president of the Bank of North America, in Providence, and he was also for some time president of the Warwick Institution for Savings.

He was decided in his political views, but too retiring and diffident to become an active partisan. He never sought any office, and never accepted a nomination for one without reluctance. He was often called into public life, however, and was for many years a participant in the legislative councils. He was successively lieutenant-governor and governor of the state. It is but truth to say that while the labors of his various offices were discharged with unsurpassed industry and fidelity, the honors they conferred were as modestly worn as the duties were well performed.

Governor Harris united with the Methodist Episcopal Church in 1843, and was thereafter a very prominent and useful member of the denomination. At the time of his death he was a trustee of the Wesleyan University of Middletown, Conn., also of the Providence Conference Seminary of East Greenwich, R. I., and of the Biblical Institute, Concord, N. H. He remained till his death a member of the Warwick M. E. Church in Phoenix, of which he was the main financial support; his benefactions thereto, as well as to the denomination generally, being large and frequent.

He married Sarah Taylor, daughter of William Taylor, of Providence, who survived him for several years. He also left surviving two daughters, one, Catherine G., being the wife of ex-Governor Henry Howard, and the other, Eliza A. F., dying unmarried. His death occurred, somewhat suddenly, February 1, 1861.

HENRY HOWARD.

HENRY HOWARD, son of Jesse and Mary (King) Howard, was born in Cranston, Rhode Island, April 2, 1826. His father, who at one time was a judge of the Court of Common Pleas, was afterwards for twenty-five years treasurer of the People's Savings Bank of Providence, and occupied always a high and influential position in the various communities of which he was a member. Mr. Howard was educated at the public schools, at the Fruit Hill, Seekonk and Smithfield Academies, and at the University Grammar School in Providence. It was intended by his father to give him a collegiate education at Brown University, and he became qualified for admission, but, on account of his delicate health, it was finally decided that he should enter mercantile life. After a short experience in business and an improvement in health, he entered in 1848 the office of Governor W. W. Hoppin as a student of law, and in 1851 was admitted to the bar. He continued in the practice of his profession in Providence until 1858, when he opened a house in New York for the sale of the goods of the Harris Manufacturing Company, of which his father-in-law, Governor Elisha Harris, was the principal owner. He remained in New York until the death of Governor Harris in 1861, when, the governor leaving no son, he returned to Coventry, and entered the financial depart-

ment of the company, with his office in Providence. For more than thirty years he has been the president of the company, and at present attends to its general investments; while his son, Elisha Harris Howard, is the agent and manager; and his son-in-law, Edward C. Bucklin, is treasurer.

He has made Coventry his legal residence since 1854, and he represented that town in the legislature of Rhode Island in 1857 and 1858. In 1856 and 1876 he was chosen a delegate to the National Republican Conventions held in those years, and in 1872 was chosen presidential elector on the Republican ticket. He was elected governor of Rhode Island in 1873, and after a re-election without an opposing candidate in 1874, he declined service for a third term. In 1878 he was appointed by President Hayes an assistant commissioner to the Paris Exposition, and made an extended and detailed report to the government of the textile exhibits of all countries.

Few men in Rhode Island have become so conspicuous in so many and so various interests and pursuits. In mechanics he has displayed much ingenuity in the application of physics to manufactures; and he introduced into this country the Pintsch system of lighting railway trains with compressed gas. Under his leadership the Armington & Sims Engine Company, a company of considerable magnitude, was organized, and the Providence Telephone Company was created and developed under his direction. He was also for many years a director of the National Bank of North America in Providence. His contributions in prose and verse to the columns of the *Providence Journal* and other publications attest a ready pen and a good style of composition. In recognition of his attainments, he received from Brown University in 1873 the honorary degree of A.M.

Governor Howard married, September 30, 1851, Catherine G., daughter of Governor Elisha Harris, of Coventry, and has three children, Jessie H., the wife of Edward C. Bucklin, the treasurer of the Harris Manufacturing Company; Elisha H., the managing agent of that company, and Charles T., a graduate of Brown University in the class of 1878, and now treasurer of the Providence Telephone Company.

It is an incident worthy of mention in this sketch that in the children of Governor Howard and wife is united the blood of the two most eminent pioneers of Rhode Island, Mrs. Howard being a lineal descendant of Roger Williams, founder of the state, and the governor having a renowned ancestor in the person of Gabriel Bernon, the Huguenot refugee, who founded the first three Episcopal churches in Rhode Island: Trinity church, in Newport; St. Paul's, in Kingstown, and St. John's, in Providence. Like Williams, Bernon sacrificed home, friends and estate for the sake of conscience. His descendants are very numerous in the state, and are among the most prosperous and influential in the community. They have a just pride in the possession of an unbroken genealogical record for six hundred years,—a circumstance quite unusual in this country.

OSCAR JENCKES RATHBUN.

OSCAR JENCKES RATHBUN, son of Aaron and Julia E. Rathbun, was born in Woonsocket, R. I., March 12, 1832. His education was obtained at the Worcester High School, Worcester, Mass., and at the Clinton Liberal Institute, Clinton, N. Y. His business career was begun at the age of nineteen, as clerk in the mercantile establishment of his father, located in his native town. Aaron Rathbun died in 1854, leaving all of his interests in the hands of his son, advising



O. J. Rathbun

him, however, to abandon merchantile life, which was not to his taste, and to embark in manufacturing. In deference to this expressed wish, and in consonance with his own inclination, he at once relinquished the career of a merchant, and settled his father's estate. In 1856 Hon. Latimer W. Ballou, at that time cashier of the Woonsocket Falls National Bank, called upon Mr. Rathbun, and requested his assistance in the bank. Not desiring to make banking the business of his life, he accepted the office conditional upon its relinquishment when other plans were fully matured. The next year he was appointed cashier of the Citizens' National Bank, and treasurer of the Citizens' Savings Bank, both of Woonsocket, which positions he filled until 1860.

During the latter year, he was married to Miss Rachel F. Harris, daughter of Edward Harris, of Woonsocket, and to them were born two children, Mabel and Edward Harris. The death of Mrs. Rathbun, which occurred in 1872, was the occasion of deep grief to her family. She was an earnest member of the Protestant Episcopal Church, not only exerting a religious influence on those around her, but exercising charity, and performing many kind and loving acts to people of less ample means. After his marriage, Mr. Rathbun, who had been a member of the corporation of the Universalist Church, severed his connection with that body, and became a constant attendant upon the services of the Episcopal Church, of which he afterwards was a vestryman.

In 1860 Mr. Rathbun completed negotiations, begun the previous year, for the purchase of the Jenckesville Cotton Mills, which he conducted until 1872, when the property was sold, he retaining a half interest.

Upon the organization of the Harris Woolen Company in Woonsocket, he was made secretary, and, on the death of Edward Harris, in 1872, he became president of the corporation, which office he held until his retirement from active business, in 1891. He was, in addition to this, identified with other interests, as president of the Household Sewing Machine Company, of the Citizens' National Bank, Woonsocket Street Railway, of the Woonsocket and Pascoag Railway Company, and director in the following organizations: Providence and Worcester Railroad, Mercantile Insurance Company, Equitable Fire and Marine Insurance Company, Franklin National Bank, First National Bank of Woonsocket, American Wood Paper Company, Ray's Woolen Company, City Mills Company, Woonsocket Gas Company, and the Rhode Island Tool Company. He was also a trustee of the Harris Institute, Woonsocket Hospital, and of the William J. King estate. Mr. Rathbun led an active business life, and found neither leisure nor opportunity for an extended political career. He was, however, for two terms representative in the Legislature of Rhode Island, and was lieutenant-governor of Rhode Island from 1882 to 1884, declining all further political honors in the interest of business requirements.

Mr. Rathbun would be generally termed a conservative man in business, but at the same time he was an important helper in projects of a semi-public nature, and in conjunction with J. P. and J. G. Ray, pushed to completion the Woonsocket Street Railway and the Woonsocket and Pascoag Railroad. He was also a promoter of the Woonsocket Opera House.

Mr. Rathbun died of heart failure February 1, 1892, in the Providence and Worcester Railroad station in Providence, where he had just attended a meeting of the Providence and Worcester Railroad Company, and been re-elected a director of that corporation, which office he had held forty years. He was buried in Woonsocket, his native town, where he had always had his residence. At his death his various large business interests fell upon the shoulders of his son, Edward Harris

Rathbun, who has administered them with intelligence, fidelity and skill, and since the death of his father has been chosen president of the Ray's Woolen Company at Franklin.

THOMAS JEFFERSON HILL.

MR. HILL was the son of Cromwell and Cynthia (Walker) Hill, and was born in Pawtucket, R. I., March 4, 1805. His father was, in early life, a blacksmith in Rehoboth, Mass., and, at the time of his marriage, in 1800, removed to Pawtucket. At Pawtucket he was dependent for his custom on the cotton mills of that town. His son, Thomas, the subject of this sketch, was wholly dependent for his education on the public schools, and at the age of fourteen entered his father's shop, and for two years assisted his father in carrying on his trade. This shop proved to be the school in which his inclinations and tastes became inclined to industries connected with iron and machinery. At the age of sixteen, on the 28th of February, 1821, he entered, as an apprentice, the machine shop of Pitcher & Guy, in Pawtucket, at that time one of the largest shops in the country. He remained there nine years; during the last four taking contracts from his employers and hiring his own hands.

During his minority he attracted the attention of Samuel Slater, the distinguished manufacturer, and was shown, by him, how to draught forms of cams and other parts of machinery. The business of Pitcher & Guy, with whom he learned his trade, was largely in the manufacture of cotton machinery, including cards, dressers, speeders, mules, looms, etc., almost exclusively after models made by Mr. Slater from English patterns. The looms made by them were introduced from Scotland by William Gilmore.

In 1830 Mr. Hill, at the age of twenty-five, went to Providence, and took charge of the machine shop in the steam mill of Mr. Slater, and four years later bought an interest in the concern, which then carried on its business under the name of the Providence Machine Company, one of the largest establishments of the kind in New England. Mr. Slater died in 1835, but Mr. Hill retained his connection with the company. In 1845 he bought a tract of land of the Stonington Railroad Company, and in August of that year, began to build a machine shop on his own account. In August, 1846, he bought out the interest in the Providence Machine Shop, held by those who had purchased the interest of Mr. Slater after his death, and, becoming the sole owner, he removed its machinery and tools to his own new shop, and continued the business under the old name of Providence Machine Company, engaged in the manufacture of cotton and woolen machinery.

In 1847 he entered into a contract with F. Skinner & Company, of Boston, to make fly frames for the Naumkeag Mill at Salem. These frames, which were first made in England in 1840, became a specialty with Mr. Hill, and of all who attempted their manufacture in America he was almost alone in making it a success. This machine, similar in purpose to the geared speeder, is adapted to the preparation of roving for yarns as fine as No. 300, and in the skilled hands of Mr. Hill the American article was soon preferred to the English.

In 1850 he became associated with Frank Skinner, Benjamin E. Bates, and other capitalists in Boston in the purchase of water power on the Androscoggin river, Lewiston, Me., and in that year the Bates' Mill No. 1 was built, and in 1851 Bates' Mill No. 2 and the Hill Mill, all for the manufacture of cotton. He also built a foundry called the Lewiston Foundry, and leasing a machine shop organized the



Thos J. Hill

Lewiston Machine Company. In 1856 the machine shop was closed, and in 1864 the foundry was sold to Amos D. Lockwood, and afterwards carried on business as the Lewiston Machine Shop.

In 1859 Mr. Hill bought of Joseph Peckham the Peckham Mills at East Greenwich, R. I., including buildings, land and power, Mr. Peckham removing the machinery to Olneyville, R. I. He stocked the mill with six thousand spindles, and called it the Bay Mill. In January, 1864, he gave one-third of this mill to his son, William, and April 30, 1867, the remaining two-thirds to his sons, William and Albert.

In November, 1863, Mr. Hill bought land in Warwick, R. I., along the line of the Stonington railroad, about seven miles from Providence, comprising with later purchases about six hundred acres, and in 1867, with Smith Quimby and Samuel W. Kilvert, organized the Rhode Island Malleable Iron Works. They erected a brick mill two hundred and forty-seven feet long by sixty feet wide, with an ell for moulding one hundred and sixty-five feet by sixty for the manufacture of malleable iron castings, including various articles of ship chandlery, agricultural tools and machinery. Mr. Hill built a railroad station called Hill's Grove station, and also a school-house for the free use of the town. In 1875 he built at Hill's Grove a cotton-mill of twenty thousand spindles, named after his wife the Elizabeth Mill. In 1887 he gave \$3,000 towards the erection of a Methodist Episcopal Church to meet the wants of the neighborhood.

Mr. Hill remained the sole owner of the Providence Machine Company until January 1, 1874, when it was organized as a joint stock corporation with a capital of \$350,000, of which besides himself, his son Albert, his son-in-law, Charles M. Pierce, Jr., and George J. Hazard, a former employee in the establishment, were members. Mr. Hill was made president and treasurer, Albert Hill secretary, and Mr. Hazard agent and superintendent.

Mr. Hill was engaged also in other enterprises than those above mentioned. In 1837 he bought the Lee Cotton Mill, at Willimantic, and ran it some years in the manufacture of thread and of cotton machinery. In 1840 he sold it to A. D. & J. Y. Smith, and it is now known as the Smithville Manufacturing Company. In 1866 he organized the Providence Dredging Company, and in 1874 the Providence Pile Driving Company, which built the Crawford street bridge and other works in Providence.

Engaged as he was in the above important enterprises it may be supposed that he had little time to give to public office or to the performance of duties of any kind of a public nature. He was a member of the Providence City Council from 1848 to 1852, and from 1855 to 1856, a representative in the General Assembly in 1878, president of the Lime Rock National Bank, vice-president of the City Savings Bank, vice-president of the Rhode Island Veteran Citizens Historical Association, and a member of the Slater Club of Providence, the Home Market Club of Boston, and of the Rhode Island Agricultural and Historical Societies.

It is needless to characterize in detail those qualities which distinguished Mr. Hill. His career, as concisely stated in this sketch, indicates plainly enough the character of the man. Possessing a natural intelligence, which did not depend on an early school education to develop it, and added to this, unwearied ambition and industry, a will which no obstacles in his way could discourage, and above all an integrity which no temptation could weaken, he reached the highest rank among the manufacturers of New England, and accomplished as much as any of his contemporaries in placing New England at the head of American enterprise and skill.

Mr. Hill married, October 12, 1825, Betsey, daughter of Sylvanus Brown, of Pawtucket, and only three of his children reached the age of maturity: William W., born July 5, 1830, was engaged in the manufacture of cotton at East Greenwich, and died December 22, 1871; Albert, born March 3d, 1834, formerly the manager of the Bay Mill, died November 5, 1889; Amanda, born August 7th, 1836, married November 28, 1860, Charles M. Pierce, Jr., of New Bedford. Mrs. Hill died May 9, 1859, and Mr. Hill, married second, December 9, 1861, Olive L., daughter of Stephen Farnum, of Canterbury, Conn., who died November 10, 1866. He married, third, August 9, 1869, Elizabeth C., daughter of John H. and Ruth Kenyon, of Warwick. Mr. Hill died at his home July 24, 1894, and his widow and daughter are the sole survivors of the family. Mrs. Pierce, whose husband died September 15, 1875, has six children, of whom William C. Pierce, the oldest son, is the present head of the Providence Machine Company, of which for several years before the death of his grandfather he was the superintendent.

ALFRED HENRY LITTLEFIELD.

PRESIDENT of the Littlefield Manufacturing Company of Pawtucket, and Governor of Rhode Island from 1880 to 1883, was born in Scituate in that state, April 2, 1829. He was the son of John and Deborah (Himes) Littlefield, and one of the descendants of Edmund Littlefield, who came from England to Boston in 1637. Caleb and Nathaniel Littlefield settled at Block Island in 1721, but the family was obliged to flee from there during the Revolution. Alfred H. Littlefield's father was born in South Kingstown, July 15, 1798, and his mother was born at North Kingstown, March 30, 1798. They were married March 11, 1816, and removed to Scituate a short time before the birth of Alfred H. In 1831 they removed to Warwick, where Alfred attended the public schools until he was eight years old, after which he was employed in the Sprague Mills until the fall of 1844, when he again attended the village school for six months, and in 1845 he began his business career as a clerk for Joseph M. Davis, a dealer in dry goods at Central Falls. In 1851 he became one of the partners of Littlefield Brothers. The style of this firm was changed in July, 1889, to the Littlefield Manufacturing Company, of which corporation he was president at the time of his death, December 21, 1893.

He was one of the incorporators of the Pawtucket Hair Cloth Company, of which he had been a director since its organization. He was a director of the First National Bank of Pawtucket, and of the Providence County Savings Bank, having been elected to these positions in 1863 (the First National Bank being a state bank under the name of the People's Bank), and remaining in them all these years. He was also for years one of the directors of the Pawtucket Gas Company, Pawtucket Electric Lighting Company, Pawtucket Street Railway Company, Royal Weaving Company and Cumberland Mills Company, and was identified with other firms and corporations. He early won reputation as a sagacious man, ranked high as a manufacturer, and was regarded an able financier.

In politics he was a Whig until the formation of the Republican party, with which he had since been identified. He belonged to a family of political distinction who were members of the General Assembly from New Shoreham from 1738 to the Revolution, Caleb, Jr., being on the committee to oppose the tea tax. William Littlefield, captain of the Rhode Island Battery, was the father-in-law of General Nathaniel Greene.



A. H. Littlefield

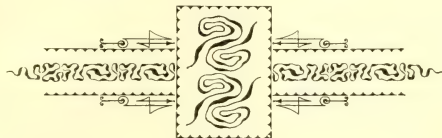
Governor Littlefield's public career began in 1873, after the town of Lincoln had been set off from Smithfield, when he was elected a member of the town council, and subsequently re-elected four times, thereafter declining all further nominations. In 1876 he was elected to represent the town of Lincoln in the General Assembly, and was re-elected in 1877. In 1878 he was elected to the State Senate, and was re-elected in 1879. He was elected governor in 1880 and re-elected in 1881 and 1882 by increased majorities. Since then he had remained in private life, save that he was always deeply interested in state and town matters.

During the Civil War, he was very active in aiding the Union troops, and in 1864 was appointed division inspector of the Rhode Island militia, with the rank of colonel, which position he held for five years. He was always identified with the veteran soldiers, and no one enjoyed their gatherings better than he, while no one was a more welcome guest. In recognition of his services, and of his interest in them and efforts in their behalf, several of the veteran associations elected him to honorary membership.

February 6, 1853, he married Rebecca Jane Northup, of Central Falls. They had four children, and two sons survive him. Governor Littlefield was a quiet, unassuming man, whose kindness of heart was often manifested in a substantial manner, and while firm in his convictions, with the requisite courage to assert and defend them, he always respected the opinions of his associates, and was thoroughly just. In business affairs he was prudent and conservative, yet far from being timid, and pursued a policy which insured safety and at the same time resulted in a healthy progression, and his almost unbroken success may be attributed to these qualities together with his diligence, excellent judgment and unquestioned integrity.

His large business experience was of great service in his official life, particularly in the administration of the affairs of the state, where he exhibited the same characteristics as marked the conduct of his personal affairs.

A writer who enjoyed an intimate acquaintance with him for many years says: "A childhood of toil and a young manhood of intense industry and enforced economy inevitably gave color to the incidents of his after life. When his circumstances permitted exemption from toil, his recreation was in study rather than at play. His self-acquired education was extremely practicable, but it was such as admirably equipped him for the many positions of responsibility and trust to which he was called. His political record is free from every ground of suspicion, that he ever compromised with conscience for the sake of personal success. Among the many honored men who have graced the gubernatorial chair of Rhode Island, none outrank Alfred H. Littlefield in a record of unselfish devotion to the absolute duty of the office, even when its performance might not elicit popular applause. Rhode Island's best citizens of all parties and from all parts of the state will bear witness to the official industry, the high honor and intelligent action of Governor Littlefield."



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